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I.

THE DEFECTIVE SCHOLARSHIP OF OUR
SECONDARY SCHOOLS

II.

WHAT COURSE OF STUDY SHOULD BE TAKEN BY
A BOY WHO IS ENTERING HIGH SCHOOL?

BY

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Deposited

INTRODUCTION

For many years I have felt that in our educational courses, we have not been emphasizing sufficiently those studies which were regarded formerly as valuable in the training of the mind. We have allowed too much stress to be laid upon subjects, which, even if mastered, offer but little mental discipline. Too many subjects designated as vocational, manual, commercial, pedagogical, etc., have been forced into the curriculum and these subjects have been emphasized far too much in proportion to their educational value or practical utility.

I further believe that the young people of Cincinnati are not receiving as good an education as it is possible to give them with the same expenditure of money. Why at the age of seventeen are our pupils three years behind in their studies those of England, France and Germany? What have our pupils to show as an offset for these three lost years of study?

I have had unusual opportunities of studying in Paris, Berlin, Cambridge (England) and America the conditions of which I write; I was for a number of years in charge of the affiliation of schools with the University of Cincinnati and I have served on many committees which considered the courses of study in the University.

The following two papers have been prepared as a study of the conditions as they exist in our schools. It is easy to test the conclusions that I have drawn; and I trust that what I have written may be of some use to those who have charge of our educational system. During the next ten years let these gentlemen improve the scholarship of our schools as much as they have improved the buildings and physical conditions during the last ten years. In this they will find a hearty co-operation on the part of the professors, teachers and parents. For we know that "the life is more than meat, and the body more than raiment?"

I. The Underlying Causes.

1°. Thomas Jefferson, after having availed himself of exceptional opportunities for studying the systems of education which then existed in the civilized world, with his great constructive ability, founded the University of Virginia. His ideas of education in all its phases are well worth examination.

In the University of Virginia there was established a system of schools; for example, the School of Latin, the School of Mathematics, the School of Natural Philosophy, etc. A student was permitted to study in any of these schools and obtain in it a diploma of graduation or proficiency. By taking diplomas in practically all the existing schools, a student obtained the A. M. degree from the University. This indicated that he had taken a comprehensive course of instruction and had done a considerable amount of work, since the requirements of some of the schools were difficult and of an exacting nature. The degree therefore signified that the recipient was a well rounded scholar. At the same time a great number of young Virginia gentlemen, who had no intention whatever of studying, would take courses and receive diplomas in certain of the schools which recommended themselves on account of their ease; possibly also the affability and good nature of the professors in charge proved attractive. These diplomas simply meant that the young men had spent some time at the University of Virginia. The University, on its part, gave no degree to indicate that it considered these young men scholars, and on their part, the young men did not care for any marks of scholarship when they had done no work.

Since that time the subjects which were comprised in one school have multiplied to such an extent and have been so augmented that now they would constitute many schools, new sciences or quasi-sciences have been developed, other languages have been introduced, new fads inaugurated.

Several decades ago, wishing to out-Jefferson Jefferson, Harvard University, followed closely by many other institutions, especially those of the middle-west and west, introduced the "elective system", whereby all courses being free and equal in value might be drawn upon to fill up a quota of units sufficient for graduation, a few units being prescribed according to the definite degree granted. It is evident that such a degree is a combination on the one hand of the degree similar to that given at the University of Virginia, and on the other hand of what was expressed through the diplomas in the various schools in that institution. In other words, the degree signifies that the young man has either studied or sojourned in college. This elective system has naturally permeated the high school. We shall call it a permeation "downwards."

2°. We next find inaugurated certain schools or "Kindergartens", places where the small child may be taken care of and entertained according to prescribed fashions through which it can, if it will, absorb or imbibe knowledge. Here to teach the child, it must be kept interested, the attention being held by various methods of entertainment. This desire of being amused has naturally permeated "upwards" the high schools and also the universities. We thus find "ease" permeating the high school from both the upward and the

downward direction.

5°. We note thirdly, the springing up and flourishing of certain colleges called Teachers' Colleges which exist for the production of executive officers and "good teachers", those teachers being good who are better able to move along the lines of least resistance among the "strata of ease" which have just been described and who can make still easier what they teach and thereby become more interesting and entertaining to the pupils. The teaching is not "this is your task, do it;" but the method is "this is your task; if it is not attractive, let us find a substitute for it, which is of equal educational value."

These colleges are naturally in close contact with the teachers in the secondary schools, their doctrines are rapidly disseminated, their methods readily adopted. Thus the schools become quickly impregnated with indefinite principles, inaccurate theories, unscientific methods and false doctrines.

The very terminology found in these Teachers' Colleges is vague and obscure, for example, they appropriate "education" and restrict the meaning of a word, which the universities in a modest way have used to denote the training and knowledge that they have imparted to students for some twenty or thirty centuries. Unlike the other schools, Law, Medicine, Divinity, Engineering, which designate their professions in their degrees, the "educationalists" in their diplomas often seek to dodge their own name. The degree we would naturally expect, is Bachelor of Education and written B. Ed. We are forced to recall the old fable, in which we are told that "the jackdaw mindful of his own deformity, clad

himself in the feathers of other birds".

For a moment, we may consider the nature of the instruction which is being imparted to the teachers. Here phases of all kinds of quasi- or pseudo-psychology take the place of mathematics and the sciences, the arts being replaced for the most part by the history and principles of "education" and by "methods of teaching". These teachers become imbued with the idea that the very difficult and complex question of educational values can be settled by means of a few crude experiments. They will assert that the training received by learning and comprehending the great truths of science or by studying and appreciating the great works of literature, can be measured in terms of the training received by estimating the sizes of different pieces of paper or by marking certain letters on printed pages.

A question that particularly interests such teachers is, if a boy is good in one subject, how good correspondingly may we expect him to be in another subject? To solve this problem, many observations or tests are made upon a group of boys, the so-called Pearson Co-efficient of Correlation is introduced and it is assumed that in this way different mental adaptabilities can be predicted with the same degree of positiveness as we have formerly found accompanying the geometrical deduction or the Aristotelian syllogism. Now there is not one teacher in a hundred that is able to derive or who even understands the Pearson Coefficient. The Coefficient is founded upon the mathematical theory of probability, a theory in which we speak only of the probability that an event will occur. We thus find adopted a method that is contrary to all methods of

teaching in the exact sciences, where every instrument of deduction must be thoroughly tested, proved and understood.

To make this clearer, I shall cite specific examples. In Science (P. 609, April 24, 1914) Professor E.L. Thorndike of Columbia University is quoted as follows:

1°. "The old notion that Latin or Mathematics made the mind more effective in all the work of business or other professions, was largely superstition;" and again

2°. "Mathematics improves mathematical reasoning but not the power to reason in general."

These two Thorndikean propositions, if true, are certainly not axiomatic, and consequently they are susceptible of proof. Instead of propounding them as demonstrable facts in gatherings of school principals, that for the most part are willing to accept anything from a Columbia professor, it would have been more scientific if Professor Thorndike had first proved his statements and then demonstrated them at a meeting of the American Mathematical Society or the American Association for the Advancement of Science. Possibly he will do this later!

As a second example. I recently heard a young doctor of Philosophy, a former pupil of Thorndike, give the results of some of his investigations. He had made a series of tests with boys in multiplying, adding and dividing numbers which consist of one cipher or digit; after making a second series of tests with the same boys and with numbers which consist of two ciphers he introduced the

Pearson Coefficient.* He then derived results which led him to declare that the mental processes which produced expertness in the first set of operations were in no wise connected with those which caused efficiency in the second set. Such an assertion seems almost incredible, since every one knows through his own experience that this is false. The same young man predicted that the time would soon come when children would not be made to learn the multiplication table. Upon being questioned, he declared that not knowing any mathematics he did not understand the nature of Pearson Coefficient. At the present time he is giving courses in a University which courses include the "method of teaching mathematics".

Another very alluring subject connected with these quasi-psychological studies is what is known as "Vocational Guidance". Here we are given to understand that by making a number of practical or physical tests with a given individual we can make a prognosis of his mind and foretell in what lines of work he will be proficient. We are told that some boys are adapted to certain courses while other boys are adapted to other courses, so that the logical beginning of all education is to be found in the "individualization of the boy". After this has been done "educational methods should be adapted to the development of aptitudes which comprise

*A detailed discussion of the use of the theory of correlation in educational investigations has been made by a young mathematician of real merit, Professor C. M. Moore, On Correlation and Disciplinary Values, School and Society, Vol. II (1915), p. 378. In this paper it is shown that most of the work that has been done in this connection is totally lacking in scientific accuracy, and that many of those engaged in doing the work had no clear conception of the significance of a correlation coefficient. In another paper (See Science, pp. 575-7, 1915) Professor Moore has given a revised form for this coefficient, but says that even then but little dependence can be put in the results that are derived from it.

the basis of the boy's special strength; while at the same time, studies should be so selected as reasonably to develop his other faculties and thus accomplish something like symmetry in educational results." But I ask first is such a prognosis possible? and secondly, who can make it? Is there any one who will dare to put down in black and white a mental diagnosis of his best friend? Is there any father who is willing to permit an expert guide in things vocational to predestine the future career of his son by means of a wooden box, a few strings, a metal apparatus, the flashing of a few colors and the shuffling of a pack of cards? Many of us are very doubtful whether alienists, even the high priced ones, can distinguish between normal and abnormal minds, and we are further told that the line of demarcation between genius and insanity is hard to fix.

We must; however, always expect to find many Doctor Cooks in the realm of the unknown. From the Washington Post, June 26, 1915, we learn that Professor Hugo Münsterberg has invented the "unerring sphygmometer, an instrument for detecting lies". "In thousands of tests which he with the true self-sacrificing spirit of the investigator, has applied to others, the machine has never failed."

In the Unpopular Review October - December, 1915, p. 346, under the heading Vocational Guidance, Professor B. B. Breese, an eminent psychologist, writes: "In spite of all the tests that psychology has produced, when we attempt to fix by vocational guidance, the career of so complex a thing as a personality, we are in no better position than the school master who advised his pupil not to study law." The boy did study law and became a famous judge.

We further find, p. 352, that Broese in his laboratory, when testing the method by which Münsterberg has been claiming to be able to select good sea captains and the like, shows that according to the Münsterberg principle, women are much better fitted for these jobs than men.

The inaccurate theories that have been outlined above, would be of little significance, if their authors would first try them out in one or two schools or in restricted localities. When, however, these vagaries are being transmitted through teachers' colleges by the wholesale into the secondary and elementary schools, it is time to enter a protest. For, if such methods of inexactness and indefiniteness are long continued, will we be surprised if our future teachers are taught by the Departments of Education, in English literature that "Cowper was the author of the Canterbury Tales" and in history that "the Battle of Salamis was fought in a pass of Northern Italy between the Greeks and the Macedonians, the latter achieving a great victory, etc.?" This is inevitable.

In this connection I shall introduce extracts of a letter from one of the leading men in possibly the best known Teachers' College: "Some of the methods as well as conclusions that have come out in the last half dozen years - not only in this institution, but in others like it - have been so ridiculous from the standpoint of real science, that one would almost feel that they would not be accepted by anyone. Nevertheless, the unscientific mind has been absorbing this material for several years, and has been taking the conclusions as absolutely scientific."

agencies that were described in the third caption, I shall consider the quasi-studies that are being continually forced into the high school curricula under the guise of vocational courses. Such courses are (I copy from an announcement of high school courses of study in one of the larger cities) garment making and laundry work, applied art, millinery and dressmaking, cookery, home economics, sewing, cabinet making and wood turning, pattern making, forging, mechanical drawing, foundry, penmanship and applied art, stenography and typewriting or commercial art or salesmanship or geometry, industrial geography, commercial law, truck gardening, dairying, etc., etc. Side by side and intermingled with these quasi-studies are advertised English, algebra, Latin, Physics, and the other disciplinary subjects. We find that in the schools as much credit is given for the one as for the other. We are told by the advocates of these quasi-studies that they have equal educational and more practical value than the disciplinary subjects. We learn that instead of studying the properties of a circle the student may as well be making the pattern of a wheel. Is this pattern not a geometrical construction, - and, if the wheel has a bearing upon some other wheel or pulley, do we not have the same educational results as are to be had in an abstruse deduction which is drawn from three or more geometrical propositions? Such and similar arguments coming from school principals have great weight with many parents, especially those who have in mind boys, graduates from high schools and colleges, who later have turned out dismal failures.

Facts are nevertheless facts, and the training derived from

these quasi-studies, the practical subjects, do not involve one fifth the mental training of the disciplinary studies. Any committee of leading teachers in a high school will attest this and the pupils themselves prove it, since they invariably regard such courses as exceedingly easy.

Now if the people, who pay for the schools, wish the vocational courses in such great profusion, they must have them; but as far as I have been able to observe, the people have been consulted very little in this matter. They have, it is true, elected a board of education, in whose hands such questions have naturally been left; the school board in turn has turned over such affairs to the school superintendent. The school superintendent and the principals in the schools in most cases have not had thorough training in the disciplinary subjects; and they try conscientiously to make up this defect by attending Teachers' Colleges or by hearing leading exponents of such colleges at the Chautauqua or Summer Schools. Through these teachers they get but little knowledge which is of a disciplinary value. The whole trend is in other directions, which unfortunately require less work.

In the same camp we naturally expect to find the theorists in things practical and the pseudo educational reformers who themselves have not had the advantages of a disciplinary education or who fail to profit therefrom.

The quasi-studies requiring but little mental effort attract great numbers of pupils into the schools. Picture shows under proper direction would draw greater numbers. These numbers in the community at large reflect credit upon the whole school system.

And at the same time many a boy chooses these "cinch" courses, who otherwise would have been greatly benefitted had he been made to take the more disciplinary ones.

5°. Fifthly I shall mention briefly a number of reasons that have been assigned by other writers for the low scholarship in our schools.

Mr. Thomas L. Burt in the Independent, July-December 1907, p. 737 points out that the American school year contains from 900 to 1000 school hours and from 185 to 200 school days, the length of the school day being five hours. According to Mr. Burt the Germans understand the value of persistence and continuity in the training of their youth; with them the school year is 1400 school hours and 270 school days. The same is true in France and England. He further writes that "teachers should see to it that the public demands more of them, and then pays them more". There might be something in this argument, if the pupils were already making any use of the time they are now spending in school.

We are further told that "we are a more nervous race"; we note that girls with a more nervous organization, do as well, perhaps better, than boys. "We have a larger foreign population"; "our climate is more exacting." We may reply that the Americans have won the great majority of contests in all the recent Olympiads. We hear again that "our teachers are poor." Undoubtedly they should be made better. It is also claimed that "The doctors and parents too readily excuse the children from school." We thus find a long list of explanations of the dilatory scholarship in our schools. While some weight must be given to these causes, I claim that the

fundamental reasons are to be found under the previous headings.

I do not wish to appear satirical. The matter is a very serious one and one in which very many are interested.

The elective system doubtless has its advantages, if it is not abused before the junior year in the university; we all wish to see the children amused and entertained, if at the same time they are given fixed tasks and are made to do them. Let the reading be made interesting but at the same time let the children be made to spell. Picture frames and butterflies must not take the place of reading, 'riting, and 'rithmetic. There may be better methods than those in vogue for teaching some subjects. If this is true, every university should have a department which emphasizes the methods of good teaching; and, as most students in the advanced courses expect to teach, this department should be closely correlated with the other departments.

I am opposed to Colleges for Teachers. Every professor, wherever located, should be an "eternal student"; and if such professors in considerable numbers constitute the faculty of any school, that school would eo ipso be a university and should be so designated. A faculty that is wanting in such scholars has no place in an educational system. If a tree is judged by its fruit, the same is true of a scholar, and the fruits of the latter are equally realistic and convincing. Scholarship is not sufficiently emphasized even in our best universities; and if there is any emphasis put upon it elsewhere, the fruit is very slow in ripening.

As the fundamental requirement of all teachers is scholarship, the place where it may be best acquired, is in the university. It

is certain that whatever good a Teachers' College may contribute to methods of teaching is retained, if the best members of such a college are formed into a department of a university. At the same time we could advantageously do away with those who are ever willing to talk about "education" and are eager to discuss educational subjects, but who themselves have no definite knowledge of anything. I believe that the strength of a university is to be found in the strength of its component departments rather than in a great number of schools or colleges loosely hung together.*

*The above paper was read before a club consisting of teachers of a university, the teachers in the high schools and those in the seventh and eighth grades of the elementary schools. After reading the paper I asked those present to write on slips of paper whether or not they agreed with what had been said. There were fifty-four answers in the affirmative and one in the negative.

Having briefly given at least four underlying causes, due to which one would naturally expect a deficient scholarship on the part of the pupils in our high schools, let me next consider the present condition of this scholarship.

The following is taken directly from notes that were made at meetings of a committee which consisted of some of the best and most influential teachers.

- 1°. It was shown that a pupil could fail in two subjects, arithmetic and algebra counting as one and English as the other in the eighth grade, and be promoted to high school.
- 2°. There are ten courses advertised in the high school course of study. In these different courses are found sufficient alternatives to make more than ninety different courses of study which a pupil may choose. The boy in most cases virtually selects his own course, persuades his parents that this is the best one for him to take and presents to the school principal the required certificate duly signed by his parents. If the pupils get any advice from their teachers, the teachers in most cases knowing the weaknesses of the pupils, advise them to take the courses that require the least mental effort. Thus the whole trend is away from the courses which have always been considered disciplinary.
- 3°. Having entered high school, the pupil finds again that he is not required to do any work. If he is found very deficient in any subject, he is not only allowed, but advised to take another subject. For example, Commercial Law, being of an elastic nature, may be substituted at any time for a course in Geometry. To avoid congestion in this grade, the pupils with marks from 50 to 70 are passed and shoved into the next grade. A teacher, who is in the least severe, meets no encouragement from any one; on the contrary, he is often the target for hostile criticism.
- 4°. Due to the fact that pupils with little effort get grades of 80 to 90 in such subjects as garment making, working button holes, sewing on buttons, etc., teachers in Latin, English, etc., have a tendency to give like grades to pupils who in reality should be marked 40, since the effort required to get this grade 40 in Latin is more than that required to get 80 in garment making.
- 5°. The same conditions are continued in the second year and throughout the high school course.
- 6°. At least thirty per cent of those who graduate from the

high school cannot pass in the work of the elementary schools.

- 7°. These pupils are admitted with open arms to many of the leading universities.
- 8°. The same conditions exist in the universities as in the high schools.
- 9°. There are no standard forms of grading anywhere in the system. It all depends upon the individual teacher.
- 10°. The teachers themselves declare the education of the American youth to be incomplete and superficial, and that this is due to the fact that too many subjects have been forced into the schools, that the "snap" or easy courses that have found their way into the schools have a bad effect upon the general scholarship of the pupils, that there is no such thing as intensive scholarship required of the pupils, and that they themselves are powerless when it comes to making the pupils study.
- 11°. In most cases the pupil leaves school without knowing how to study.
- 12°. As Professor Paul Shorey puts it, the pupil is "socially precocious and mentally retarded," and as has been said, "The result of this superficiality, due to the modern tendencies in education, are rapidly sapping the virility and strength from the characters of our American youth."

A celebrated nerve specialist, Dr. Charles L. Dana, writes (see Transactions of the American Neurological Association, 1915):

P. 439. "Last winter the committee on public health of the New York Academy of Medicine referred the subject of mental fatigue in school children to me to investigate and report upon it. Subsequently, the following report was made and adopted:

"Your committee has reached the conclusion that there is no serious degree of mental fatigue produced by school work in the usual five-hour limit, and that it is not necessary to shorten the school hours on account of this school work.

P. 430. "A study of the matter led to the conclusion that American children in the eastern schools, at least, are not overworked, but on the contrary that they do not work enough, and that they are often educated in such an ineffective way that at the age of 16 or 18 the American boys are about two years behind the boys of Germany, France, and England. This loss of time and retardation in education I found was generally admitted (see appendix)."

Another opinion is expressed as follows:

"I am absolutely convinced that during his school course the German boy gains about two years in development over the American boy. My opinions conform to the generally expressed opinions of educational men." Experiences of an American Exchange teacher in Germany. Educational Review, January, 1914.

Wm. H. Smiley, Superintendent of Schools, Denver, Colo. writes:

"An examination of the curricula of good European secondary schools and the papers set for graduation will convince anyone that at the completion of their course boys of 18 have completed work in the fundamental subjects of literature, mathematics, and science equivalent to that offered in the sophomore year of the American colleges."

Professor Henry A. Perkins in the Yale Review, 1913, writes:-

P. 131. "This optimistic view (regarding our school system) was strengthened at about the same time by a report of the Mosley Commission, which was sent to this country from England to study our educational methods. The report praised some features of our technical schools and found certain things deserving of reproduction on the other side of the ocean. But, although the report commended mainly our technical training, and did not even pronounce that superior in all respects, it was seized upon by persons of spread-eagle tendencies as a commendation of our whole educational system; and we may now hear, at any educational conference, complacent assurances that our school system heads the world.

P. 137. "The rapid progress made in a French lycée between the ages of ten and fourteen and fifteen, is just as apparent

to anyone who has looked into this admirable system. By the time his age is twelve or thirteen, the French boy is reading Livy, Virgil, and even Tacitus, in the original, and is doing an amount of work in Latin grammar and composition that would horrify our schoolmasters.

P. 138. "This remarkably rapid development is made possible in France by a variety of means, such as the systematization of all instruction under the Ministry in Paris, and the tremendous competition among the students for scholastic honors and consequent preferment in all branches of government service later in life. The result of this competition, unknown in this country, is to force the schoolboy to his most serious efforts, and to submit to an amount of study at home that would not be tolerated here. Besides, the teachers in the lycée are more highly educated than are our usual high school teachers because of the competitive system under which they are trained; and they are therefore capable of imparting a really broad culture to their classes. It should further be noted that the French boy is allowed but few outside distractions from the main business of his life. All school publications are prohibited, and such abominations as school secret societies would not be tolerated for an instant. Its members, should any be rash enough to organize one, would be promptly expelled.

"A fact we must constantly have in mind in this comparison of American and European methods, is that in Europe a child of ten is supposed to be able to work and work hard, and there is little pity shown either to the dull or to the lazy. This determination to keep children working steadily, with short vacations and very regular hours for both work and play, results in the gain of two whole years or even more by the time the student reaches the university; and, as I have shown, this gain is made largely before the fifteenth year. At that age, as will be clear, an English boy is at least a year ahead in all his courses; and in the case of Latin, Greek, and mathematics, he has already outdistanced us by two years or more. To offset this, we boast a smattering of several so-called practical subjects, which, though doubtless useful so far as they go, do not involve one quarter of the mental training given by the older studies, and are invariably regarded by the children themselves as 'cinch courses'.

"I repeat, then, that two years are lost in our educational programme, lost during the adolescent years, and are never recovered in kind at any stage in the youth's mental development. Can we permit so serious a loss to continue? Will it be possible for the United States to hold her own, as a leading power, with two years of each schoolboy's life practically annihilated as far as mental growth is concerned? These are serious questions; and we are bound to look carefully into the causes responsible for the two lost years, and

to see whether the loss is inevitable or not, and if not, how it may be prevented."

P. 140. Mr. Horace Taft of the Taft School has said in this connection: "All other reforms and questions in American education are unimportant, compared with the cure of flabbiness, superficiality, and low standard of the early training of our pupils."

Dr. Dana is quoted in the New York Herald, January, 25, 1914, as follows:-

"We all know that the college boy of today is not educated, that he does not want to be educated and that he just wants to graduate and make his letter or secret society. The result of this superficiality is showing in our social and political life today.

"I believe that medical opinion will support the educators today in taking the boy of ten years and making him work till he makes up the years he is now foolishly wasting. We are too sentimental toward the children and too much stress is laid on their caprices and nervosities.

"I also think that the American child is cumbered with a variety of studies that are of no value to him, and that the time taken up by them would far better be put on the essentials of education. Before the boy is sixteen he does not know what he wants to do in life - he is not capable of judging. Instead of having the child try his hand at carpentry, I would have him studying for the discipline of the mind. After he is sixteen his training should be specialized.

One-time President Taft criticised the general tendency on the part of parents to defer to the likes and dislikes of the children.

"We are coddling our boys and girls," he asserted. "We are giving them too much freedom; we are humorizing their immature and callow preferences and desires and we are not, through obedience and authority, teaching them the lessons that are essential in making them successful and useful members of the community. More than this, we are seeking to cure defects in our education, as well as in our society, by more democracy. We have had the ridiculous exhibition of school children striking because a favorite teacher was transferred and weak minded parents looking with pride upon the courage and enterprise of their offspring.

"A mistake of the same kind was made in our universities, in the adoption of the general optional system, on the assumption that a youth of seventeen or eighteen was competent to select the branches he ought to pursue in receiving an academic education. This led to the graduation of one-sided young men from academic institutions that were supposed to turn out well rounded intellects upon which further education in the professions or vocations could properly be based.

Now we have realized the mistake of the universities and there has been a reaction."

Professor Wm. H. Taft, in an address before the New York State Teachers' Association at Rochester, New York, November 24th, 1915, according to the Associate Press Dispatch, "criticised the present system of education in the United States as being in many instances inefficient and superficial, and suggested that the Federal Government might, through a system of inspection and criticism, aid the United States in bringing about higher standards, both in respect to teachers and methods." Incidentally, the former president declared that the boys of England, France and Germany were better educated than those in this country. "The German youth of 15," he said, "is as well prepared to enter a college course as our boys of 18 and 19."

As a proof of the defect of the present system, Mr. Taft referred to the report of the Carnegie Foundation for the Advancement of Teaching, which showed that the local school superintendents of some states cannot spell or write good English. Mr. Taft declared that "there is a most important waste of valuable human time in the years of the life of the boy and girl, between six and 14 years. We have too much marking time. There is no reason why we should not make our education as thorough and useful for the youth as that in France, of Germany, or England," said Prof. Taft. "We, as parents, have been content to follow the line of least resistance. We have not insisted on home discipline. We have allowed our children to have their way far more than foreign children have."

To the above I shall add an extract from the Report of the National Council of Education on "Economy of Time in Education," U. S. Bureau of Education, Bulletin No. 548.

"We approach now the question of saving time in the elementary period or of accomplishing more within the time. There must be important reasons why in Germany, France and England the secondary graduate is believed to be two years ahead of our high school graduates."

I have shown above in what manner the scholarship in our schools is defective. The deficiencies are so glaring that the school authorities should not only admit them but they should make them known to the people in general and in particular to the parents whose children are to be educated. The time has come for the school superintendents and the teaching fraternity to cease advertising the questionable excellencies of their schools and to go to work to overcome the defects that are only too palpable. The parents apprised of existing conditions and the general public will willingly lend a helping hand; in fact, it is the imperative duty of everyone to assist in this matter. I may add here some of the required remedies, some I have taken from various writers, others suggest themselves.

The committee on "Economy of Time in Education", mentioned above, say that

- P. 15 "No doctrine has been more harmful than that one subject of study is as good as another, and that all subjects should be taught alike; arithmetic is a tool and a discipline in absolute accuracy; literature, history, and elementary science in this period are for culture.
- P. 16 "Simplify the courses of instruction; cease multiplying subjects; concentrate on a few valuable studies -- it is not necessary to take all the sciences in a high school; make college entrance requirements reasonable. The great mistake of our education is to suppose that quantity and strain constitute education. Education is a question of doing a few essential things well and without overstrain.
- P. 32 "We must provide vocational schools for those who go to secondary school, but not to college.
- P. 51 "Enriching the curriculum was a great idea, but it has been subject to endless abuse, and the time has come to apply the philosophy of the 'simple life' to education."

"Simplify the school courses," writes Dr. Dana, "prune them and make them thorough; then put the boy to work upon them, so that he will know something well when he is turned

out. Why, look at our Rhodes scholarship men. They have to fall a year behind when they get to England. It isn't merely the difference in the kinds of courses - it is because they do not know their languages and their mathematics. Too much stress is laid upon the caprices and alleged nervosities of the growing child, mental work is not only healthful but it is absolutely beneficial for him, and there is nothing so important for him, as to be impelled to do hard work and to finish thoroughly a given task. The American youth has a brain that is not overworked, and it needs the influence of a systematic and intelligent but hard, hard taskmaster."

"The European idea is that after the age of ten a child is able to do hard work and ought to do it; the American idea is that it is able to do some work, and ought to be persuaded to do it."

"We are giving our boys and girls too much freedom," according to Hon. Wm. H. Taft, "we are humorizing their immature and callow preferences."

As Mr. Taft has written, we have realized the mistake of the universities in the adoption of the general option system, and there has been in some quarters a reaction. The minimum requirements for Yale College include

English, four years,
Latin, four years,
Mathematics, three years;
Modern Languages, two years;
and four electives.

In a letter of recent date the Registrar of Harvard University writes:

"Under our new plan of admission we are willing to consider any school course which has been mainly concerned with language, mathematics, history and science." Of course, the required number of credits must be made. The Registrar of Bryn Mawr College suggests an ideal course for entrance to that college as follows:-

English, four years (four periods a week),
Latin, four years (four periods a week),
Algebra, two years (four periods a week),
Geometry, two years (four periods a week),
Science, one year (four periods a week),
History, one year (four periods a week),
also two of the following languages:
French, German, or Greek for three years
(four periods a week).

Dartmouth College "views with apprehension the issuance of a certificate to a pupil whose standing is below 85." Princeton has always been rigorous in her requirements; the western universities have been less exacting and have thereby gained a greater number of students and the resulting deficient scholarship. For example a law was enacted about a year ago in the State of Ohio whereby the State University is required to accept graduates of any school that is rated by the State Superintendent of Public Instruction as first grade. Such a law is palpably nefarious, since it works against the very students who were intended to be the beneficiaries. For necessarily the requirements made in the University cause an exceedingly large mortuary among students who otherwise would not have entered.

There should be given in the high schools two courses with distinct certificates on their completion:

1°. The one should lead to the university, the professions, engineering schools, etc. Pupils who desire a liberal education should take this course. The course must be restricted to such subjects as are outlined above in the Harvard and Bryn Mawr requirements and the standard of scholarship must be at least 85.

2°. The other course should lead to the vocations, domestic science, manual training, music, art, etc.

During the first two years the courses should be practically the same; after these two years a number of alternatives may be allowed in either course. The pupils must be made to study; and the teachers must be able to act as intelligent, and if necessary, hard taskmasters.

Every phase of education applying to all the grades of every school and including the scholarship and teaching ability of every teacher should be standardized. In other words, there must be definite standards for all pupils and for all teachers.

This can only be done through the systematization of all instruction under a department of education at Washington. Over this department there must be a secretary of education having like rank as the Secretary of Agriculture, for example. The Secretary, a man himself distinguished either in the Sciences or letters, with competent groups of experts from the best universities in this country and abroad, must make exhaustive studies of existing conditions. Definite data must be had before we can have any scientific basis upon which we can work. A report made by a single individual or by a group of men, particularly when they are otherwise engaged as school superintendents, college professors and the like, has on the face of it but little value.

Through this department, as Mr. Taft has pointed out, "the national Government might help to promote State education by offering machinery to the people of a municipality, of a county, or of a state, by which they might, if they choose, have the schools they pay for, investigated and examined and the value of the education given, tested by a survey or report of officers of the department. Such officers should be trained experts."

The distinction I make, is that it will be incumbent upon the department to make these examinations from time to time. I am, however, absolutely opposed to Mr. Taft's suggestion of having a National Normal School at Washington to carry out the above plan.

For the experts would soon be the the ones that have been trained in such a normal institution and we would soon be intensifying the conditions which we are most desirous of changing. I believe that Mr. Taft will find that practically every one of his colleagues in Yale University will agree with what I have written.

In the annual expenditure of the \$750,000,000.00 upon the public school system, the Secretary of Education will soon find that his department may exercise its good offices for the public welfare in a manner that is of equal importance with any of the other departments at Washington.

2220

The Underlying causes of the defective scholarship in our schools as indicated above, are

1°. The free election of too many subjects which are given equal weight in the school curriculum. Dr. Charles W. Eliot in a recent paper prepared for the general educational board speaks of the "glaring deficiencies" in secondary schools. The former President of Harvard University was one of the principal agents in inaugurating a free election of courses; and in my opinion a final analysis will show that he contributed more than anyone else toward these "deficiencies." It may be added that since his retirement from Harvard, a "new" set of entrance requirements have been made in that University.

2°. In the Kindergarten the child must be interested, in the university the student expects entertainment, and throughout the whole system there is a desire to be amused.

5°. The unscientific methods of instruction found in colleges for teachers are not conducive to sound education. One cannot reprehend sufficiently the demands made by school authorities whereby prospective teachers are induced or compelled to put more emphasis upon methods of teaching than upon the acquisition of a comprehensive knowledge of the subjects they expect to teach. I have no objection to the requirement of any amount of pedagogy of those who intend to become school principals or superintendents; but I contend that the teachers who expect to teach in the elementary schools, should be required to have a comprehensive knowledge of subjects taught in these schools before they are given Teachers' certificates.

In the secondary schools a teacher who expects to teach should know his subject sufficiently well to be able to take graduate courses in it; he should be encouraged, though not required, to take graduate courses, as opportunity arises.

It will be found that these requirements are far below the standards set in either France or Germany. In these countries rigorous examinations are held in all subjects that the candidate is required to teach. When one reads the quotation below from the Unpopular Review, it will be seen that I am more than conservative in my criticism relative to pedagogy. My contention is "that whatever good a Teachers' College may contribute, is retained if the best members of such a college are formed into a department of a university."

Unpopular Review, Jan. - March, 1916, page 64.

"Of the innumerable college men with whom I have talked, not one has ever expressed anything but contempt for the department of pedagogy as an educational futility, and abhorrence of it as a meddling nuisance. Yet, in many of our state universities, even in some endowed institutions, the professional pedagogue is feared as one of the powers behind the throne. This is due to the tyranny of school boards and town councils acting through regents and president. Thus in one state where I am acquainted, no man or woman is licensed to teach in a high school who has not pursued three years of pedagogical studies; and this absurdity, in greater or less measure, prevails elsewhere. Now the student in these courses loses precious time which he might devote to learning the subjects he is likely to teach, and, as a recompense, of the method of teaching learns nothing at all which has even the most remote utility. That is a broad statement, but it needs no proof among college men. The pedagogical department, when the flummery of words is stripped away, is not a place for teaching anything that anybody knows; it is mainly a machine for recording jobs and getting men into them, and it systematically lowers the tone of whatever it touches. It is suffered because it draws prospective teachers, who would fear to stand on their merits as men and scholars; and it is the last and one of the most noxious of the evils flowing from our quantitative standard. This huge and wriggling arm of the school octopus, reaching up to the college and sucking it steadily downwards, I would hack at

with every sharp instrument in my grasp; and if I should succeed in cutting it off, the schools themselves, being forced to follow the higher institution instead of trying to lead, would be benefitted as much as the college."

4. Vocational studies. It will be seen in the next paper that men who are very prominent in the world of affairs, recommend that boys in high school take the studies that are disciplinary. They put no emphasis whatever upon vocational studies in the schools.

5. Under a fifth heading are included the "shortness of the school year", "the nervousness of the American race", "bad climate", "poor teachers", etc.

The Present Condition

It is shown that the pupils do not study and that the teachers are not in a position to make them work.

The Natural Consequences

As one would suspect, the American youth of seventeen years is three years behind the English, French or German boy of the same age. Convincing data are given for this statement.

The Required Remedies

Concentrate on a few valuable subjects. Eliminate vocational studies entirely from the courses that lead to College, School of Engineering, Law, Medicine, Theology, etc. The professors in these schools much prefer students who have taken the disciplinary subjects.) Set a fair standard of scholarship in these subjects and require the pupils to come up to the mark. Do not allow them to pass in a subject in which they have done poor work. Encourage proficiency in the teachers. Recognize the fact that

we are behind other countries in the educational world, eliminate the defects of our system of education and improve this system until we are at least abreast with the times.

2220

WHAT COURSE OF STUDY SHOULD BE TAKEN BY A BOY WHO IS ENTERING HIGH SCHOOL?

ALMOST every one will agree with the philosopher Kant that the greatest concern of man is to know how he shall fill properly his place in the universe and shall understand correctly what he must be in order to be a man; and almost every teacher will agree with William of Wykeham that the chief end of education is "the making of a man."

If the best way to make any thing is to be found in the final product of the making, then in the case of a man it is the man; and, as experience is knowledge, no one knows so well the processes through which a man has been made, as that man.

All teachers are concerned in the part that education plays in this man-making process, and it must be of interest to them to note what studies a man who is a man would advise a boy to take.

Desiring to get this information, I have sent the circular-letter found below which explains itself; and to see in how far there is a consensus of opinion I have tabulated the two sets of answers, the one set from men outside of Cincinnati, the other of men resident in this city.

It may be well to note the correspondence between these two sets of answers; for I can see no reason to believe that the answers from the residents of any city other than Cincinnati will differ from the first set of answers more than do the answers of the Cincinnatians.

A number of the gentlemen have not only been good enough to answer the questions, but they have also been sufficiently interested to write letters in which they set forth their ideas of education. These letters will be printed and distributed in separate form; for they must

necessarily prove of great assistance for the guidance of boys in the selections of their studies, in particular the boys who have no competent advisers.

THE CIRCULAR-LETTER THAT WAS SENT OUT UNIVERSITY OF CINCINNATI

April 12, 1915

Dear Sir: You no doubt know that commissioners are appointed from time to time to revise and improve the courses of study in the schools and colleges. Such problems as the *national development in education, the social and national needs, the welfare of the commonwealth*, etc., are being considered constantly, but by men who for the most part are primarily educators.

Through systems of education the great men in all vocations of life are produced, the men who supervise the welfare of the country and who guide its destinies. If such men by their counsels would take an active part in the direction of the education of the youth of the country, there are many who believe that our educational systems would be greatly improved. For as education makes better men, better men are able to make better systems of education, so that the cycle of improvement is continuous.

With the desire of getting the views of such men, men who are *not* directly connected with the teaching fraternity, and wishing to have these views placed so that they may be compared with the ideas and theories that are being promulgated, I propose to make the following investigation:

From a distinguished lawyer I have the names of thirty men among the leading members of the bar in the United States; a prominent physician has given me the names of thirty among the eminent medical men; similarly I have procured the names of thirty very learned clergymen. An equal number of names has been furnished me of men of affairs nationally prominent, bankers and railroad officials.

For a second investigation I have the names of one hundred and eighty among the most prominent Cincinnatians.

To these men and women I am sending the inclosed questions; and, if their answers seem to tend in any definite direction, I shall publish the results in *SCHOOL AND SOCIETY*, edited by Professor Cattell, of Columbia University.

I hope that I shall get results which will cause others to make similar investigations in different communities. These combined observations should prove of much educational interest as well as of practical value.

You have been included in my list. I trust that you will consider the investigation worthy of your

attention, and I beg that you will answer the questions below.

Yours very truly,

HARRIS HANCOCK

Which of the following courses in a high school would you advise a boy to take?

NO. 1

A course where both mathematics and the classics are optional; for example, where history is substituted for mathematics.

NO. 2

A course where mathematics is required, the classics being optional.

Business Men

Rec'd. 14

Chas. E. Adams.....	Cleveland	No. 2	(A)	No	(B)	Yes
Ralph Albertson.....	New York	No. 2	(A)	Yes	(B)	No
Louis Annin Ames.....	New York	No. 2	(A)	No	(B)	Yes
Frank B. Anderson.....	San Francisco	No. 2	(A)	No	(B)	Yes
Thurlow Weed Barnes.....	New York	No. 4	(A)	Yes	(B)	—
Enos M. Barton.....	Chicago	No. 2	(A)	No	(B)	Yes
W. K. Bixby.....	St. Louis	No. 2	(A)	No	(B)	Yes
Joel W. Burdick.....	Pittsburgh	No. 4	(A)	—	(B)	Yes
Chas. Calwell.....	Philadelphia	No. 2	(A)	Yes	(B)	Yes
W. H. Canniff.....	Cleveland	No. 2	(A)	No	(B)	Yes
Benj. Carpenter.....	Chicago	No. 2 or 4	(A)	Yes	(B)	—
Wm. D. Clause.....	Pittsburgh	Elective	(A)	Yes if elective		
Chas. R. Flint.....	New York	No. 3				
Jas. B. Forgan.....	Chicago	No. 4	(A)	No	(B)	Yes
William Fortune.....	Indianapolis	No. 2	(A)	Yes	(B)	Yes
J. P. Frenzel.....	Indianapolis	No. 4	(A)	No	(B)	Yes
Wm. H. Gardner.....	Boston	No. 1	(A)	—	(B)	Yes
Philetus W. Gates.....	Chicago	No. 4	(A)	No	(B)	Yes
J. J. Glessner.....	Chicago	No. 4	(A)	Yes	(B)	Yes
Walker D. Hines.....	New York	No. 2	(A)	—	(B)	Yes
Henry Holt.....	New York	No. 4	(A)	Yes	(B)	No
J. Kirby.....	Dayton	No. 4	(A)	No	(B)	Yes
J. Kruttschnitt.....	New York	No. 2 or 4	(A)	—	(B)	Yes
Joshua B. Lippincott.....	Philadelphia	No. 4				
Andrew MacLeish.....	Chicago	No. 4	(A)	No	(B)	Yes
W. A. Marble.....	New York	No. 1	(A)	Yes	(B)	Yes
Henry L. Mason.....	Boston	No. 4	(A)	No	(B)	Yes
William J. McKee.....	Indianapolis	No. 4	(A)	Yes for primary schooling		
M. L. Milligan.....	Springfield, O.	No. 4	(A)	Yes	(B)	Yes
E. B. Morris.....	Philadelphia	No. 2 or 4	(A)	—	(B)	Yes
Chas. A. Otis.....	Cleveland	No. 4				
Frederick J. Paxon.....	Atlanta	No. 4	(A)	No	(B)	Yes
Seward Prosser.....	New York	No. 4	(A)	Yes	(B)	Yes
Blanchard Randall.....	Baltimore	No. 4	(A)	Yes	(B)	No
Wm. A. Robinson.....	Louisville	No. 2	(A)	No	(B)	Yes
F. W. Scott.....	Cleveland	No. 4 or 2	(A)	Yes	(B)	—
A. L. Shapleigh.....	St. Louis	No. 2	(A)	No	(B)	Yes
E. T. Shanbacher.....	Philadelphia	No. 4	(A)	No	(B)	Yes
Edwin L. Shuey.....	Dayton	No. 4	(A)	Yes	(B)	No
A. B. Spreckels.....	San Francisco	No. 4				
Judd Stewart.....	New York	No. 2	(A)	No	(B)	Yes
Ambrose Swasey.....	Cleveland	No. 2	(A)	—	(B)	Yes
Frank Arthur Vanderlip.....	New York	No. 4				
C. P. Walbridge.....	St. Louis	No. 2	(A)	No	(B)	Yes
Morris Whitridge.....	Baltimore	No. 4 or 2	(A)	No	(B)	Yes
Daniel Willard.....	Baltimore	No. 2	(A)	Yes for lower schools		
Chas. Woollen.....	Indianapolis	No. 2	(A)	No	(B)	Yes

College Faculty

Miss L. H. Carnell.....	Philadelphia	No. 3 or 4	(A)	No	(B)	Yes
Mr. Frederick A. Hall.....	St. Louis	No. 4	(A)	No	(B)	Yes
Mr. H. M. Raymond.....	Chicago	No. 4	(A)	No	(B)	Yes

Theologians

Chas. F. Aked.....	San Francisco	No. 4	(A)	Yes	(B)	No
C. P. Anderson.....	Chicago	No. 4	(A)	No	(B)	Yes
L. W. Batten.....	New York	No. 2	(A)	No	(B)	Yes
W. C. Bitting.....	St. Louis	No. 4 or 2				
George Hodges.....	Cambridge	No. 4	(A)	Yes	(B)	No
Bishop Edwin H. Hughes.....	San Francisco	No. 4	(A)	Yes	(B)	Yes
D. E. Jenkins.....	Omaha	No. 4	(A)	Yes	(B)	Yes
Carter Helm Jones.....	Seattle	No. 4	(A)	Yes	(B)	Yes
Warren H. Landon.....	San Francisco	No. 4				
M. A. Matthews.....	Seattle	No. 4	(A)	Yes	(B)	Yes
James G. K. McClure.....	Chicago	No. 4	(A)	Yes	(B)	Yes
Bishop Francis McConnell.....	Denver	He believes in the "trying out" system				
Bishop Wm. F. McDowell.....	Evanston	No. 1	It depends upon boy			
Wallace Radcliffe.....	Washington	No. 4	(A)	Yes for youth		
			(B)	Yes for matured student		
Robert W. Rogers.....	Madison, N. J.	No. 4	(A)	No	(B)	Yes
W. Merle Smith	New York	No. 4	(A)	Yes	(B)	No
Rev. John T. Stone.....	Chicago	No. 4	(A)	No	(B)	Yes
Bishop David Tuttle.....	St. Louis	No. 4	(A)	No	(B)	Yes
Bishop John H. Vincent.....	Chicago	No. 4	(A)	Yes	(B)	Yes
				for discipline and power		
Charles Wood.....	Washington	No. 4	(A)	Yes	(B)	No

Lawyers

Simeon E. Baldwin.....	New Haven	No. 4	(A)	No	(B)	Yes
		(If for college)				
S. S. Gregory.....	Chicago	No. 4	(A)	Yes	(B)	No
Wade H. Ellis.....	Washington	No. 2	(A)	Yes	(B)	—
Peter S. Grosscup.....	Chicago	No. 4	(A)	Yes	(B)	Yes
Frederick N. Judson.....	St. Louis	No. 2 or 4	(A)	Yes and if practical in a thorough knowledge of a few subjects		
Roscoe Pound.....	Cambridge, Mass.	No. 4	(A)	No	(B)	Yes
Henry Wade Roger.....	Yale	No. 4	(A)	No	(B)	Yes
Hoke Smith.....	Washington	No. 2	(A)	—	(B)	Yes
Moorfield Storey.....	Boston	No. 4 or 2	(A)	Yes	(B)	No
John Barton Payne.....	Chicago	No. 2	(A)	Yes	(B)	No

Physicians

L. F. Barker.....	Baltimore	No. 4	(A)	Yes in early educ.		
			(B)	Yes in later educ.		
Frank Billings.....	Chicago	No. 4	(A)	No	(B)	Yes
E. H. Bradford.....	Boston	No. 4	(A)	—	(B)	Yes
Lawrason Brown.....	Saranac Lake	No. 4	(A)	Yes	(B)	No
George Dock.....	New Orleans	No. 4	(A)	No	(B)	Yes
W. C. Gorgas.....	Washington	Allow the boy to choose course				
			(A)	Yes	(B)	No
W. D. Gatch.....	Indianapolis	No. 4	(A)	No	(B)	Yes
Alfred C. Gray.....	Richmond, Va.	No. 4				
W. W. Keen.....	Philadelphia	No. 4	(A)	No	(B)	Yes
W. J. Mayo.....	Rochester	No. 3 with Science				
Chas. Minor.....	Ashland, N. C.	No. 4	(A)	Yes	(B)	Yes
M. M. Portis.....	Chicago	No. 2	(A)	Yes	(B)	No
R. L. Wilbur.....	San Francisco	No. 1	(A)	No	(A)	Yes
Cunningham Wilson.....	Birmingham	No. 2 or 4	(A)	Yes	(B)	No
John A. Wyeth.....	New York	No. 4	(A)	Yes	(B)	No

NO. 3

A course where the classics are required, mathematics being optional.

NO. 4

A course requiring both the classics and mathematics.

Please indicate also in the blank spaces what other courses of study you would recommend.

Do you believe (A) in a general knowledge of a great number of subjects? or (B) in a thorough knowledge of a few subjects?

Besides the members of college faculties there were purposely omitted engineers, architects, builders of all kinds, inventors, army and navy officers, in short, all men who have required mathematical training in their professions. Three faculty members have kindly answered letters which were no doubt turned over to them.

In the following list it may be noted that after the name of Mr. Albertson, for example, No. 2 means that he chose course No. 2 above while Yes in the column after (A) signifies that he answered question (A) above in the affirmative.

Miscellaneous

A few of the answers were unsigned. These included:

- One preference for No. 1.
- Three preferences for No. 2.
- Four preferences for No. 4.

Question (A) was answered three times Yes, twice No.
Question (B) was answered four times Yes, once No.

SUMMARY

Non-residents of Cincinnati

	No. 1	No. 2	No. 3	No. 4	No. 2 or 4	No. 1, 2, 3 or 4	No. 1 or 4
20 clergymen.....	1	1	0	17	1	0	0
47 business men.....	2	18	1	20	5	1	0
15 physicians.....	1	1	1	10	1	1	0
9 lawyers.....	0	2	0	5	2	0	0
8 miscellancous.....	1	3	0	4	0	0	0
99 total.....	5	25	2	56	9	2	0
3 heads of college faculties	0	0	0	2	1		

In a separate bulletin I shall add the names of the Cincinnatians who voted; but to save space I shall give here only a summary of their answers.

Cincinnatians

	No. 1	No. 2	No. 3	No. 4	No. 2 or 4	No. 1, 2 or 3	No. 1 or 4
15 clergymen.....	1	2	0	9	2	1	0
41 business men.....	2	17	0	19	2	0	1
17 physicians.....	2	7	0	6	2	0	0
26 lawyers.....	1	4	0	18	3	0	0
6 miscellaneous.....	1	4	0	1	0	0	0
105 total.....	7	34	0	53	9	1	1

To the questions (A) and (B) the answers were:

Non-residents of Cincinnati

	Question (A)		Question (B)	
	Yes	No	Yes	No
Business men.....	16	20	32	4
Clergymen.....	11	5	12	4
College fac.....	0	3	3	0
Lawyers.....	5	3	6	2
Physicians.....	7	5	8	5
Miscellaneous.....	3	2	4	1
Total.....	42	38	65	16

Cincinnatians

	Question (A)		Question (B)	
	Yes	No	Yes	No
Business men.....	17	11	16	7
Clergymen.....	9	5	12	1
Lawyers.....	9	11	18	3
Physicians.....	6	9	12	2
Miscellaneous.....	2	3	3	1
Total.....	43	39	61	14

N. B. These answers were not exclusive; for example, many marked yes to both (A) and (B).

Dr. Theodore Janeway, of the Johns Hopkins Hospital, wrote:

It seems to me that nothing requires more individualization than the decision as to what type of preparatory course is desirable for a particular boy, both with reference to his personal aptitude and to the vocation which he expects to select subsequently. I do not feel that I could possibly answer such general questions as you propose.

To precede table on p. 2.

A letter from Dr. Bardeen, of the University of Wisconsin, is as follows:

I do not feel that I can give a categorical answer to the four questions on the enclosed blank; so much depends on the boy and the high school. I firmly believe that high-school training should require hard work, and that the aim should be to give a thorough drill in a few subjects rather than to cover a large number of subjects superficially.

Dr. Charles W. White, of the University of Pittsburgh, wrote:

I have been much interested in your circular letter, but it brings up to me what I think is the fundamental weakness of all our educational work, and this is that we are constantly endeavoring to make a single machine turn out a finished product of widely varying character. Each year I have to deal with education I am more convinced that no universal plan of primary education will fit all men for every kind of later education.

A classical education would obviously be a better ground-work for the biological sciences, as mathematics would be a better ground-work for the physical sciences; so I think it should be incumbent upon each teacher, through whose hands a child passes, to report to some central officer in the given school district on the adaptabilities of each individual pupil, and on the result of these original opinions the child's future studies should be based.

Similar letters have been received from Mr. U. N. Bethell, president of the New York Telephone Company; Mr. Waldo Newcomer, banker, Baltimore, and Hon. R. S. Taylor, Ft. Wayne, Ind.

From the Cincinnatians were received eight letters giving as answers:

"So much depends upon the boy," "Depends upon the after career," "Depends upon the future requirement of the student," "Only teachers coming into daily touch for a long period, with pupils of varied abilities, are fully competent to judge of the working of courses of instruction," etc.

These letters caused me to send to all the teachers in the seventh and eighth grades of the Cincinnati schools a letter containing two questions:

Question (a). Out of every one hundred boys that you have taught, how many do you believe

have consulted you regarding their future careers and have profited by your advice?

Question (b). Before entering high school, out of every one hundred boys, how many do you think have definitely decided upon their future careers?

It may be of interest to read the answers to these questions. The answers of any one person to questions (a) and (b) are separated by a comma and these two answers are separated by a semi-colon from those of the next person as follows:

5, 5; 2, 7; 5,5; 1,0; 0,1; 10, 3; 2, 7; 0, 0;
0, 3; 3, 1; 5,3; 0,1; 2,5; 0, 5; 4,12; 0,10;
3, 5; 5, ?; 4,0; 2,5; 0,0; 5, 5; 1, 5; 1, 5;
5,12; 0, 0; 5,1; 0,0; 0,?; 1, 1; 1, 1; 10, 5;
2, 5; 2, 4; 5,3; 1,1; 5,0; 1, ?; 0, 0; 2, 5;
0, 1; 0, 1; 3,5; 0,1; 5,1; 2, 5; 1, 1; 5, 5;
1, 1; 12, 3; 3,5; 2,5; 4,1; 2, 5; 2, 4; 4, ?;
1, 1; 3, 5; 2,5; 1,1; 0,3; 1, 5; 2, 4; 1, 1;
5, 0; 4, 0; 2,5; 3,4; 0,1; 2,10; 1, 3; 2, 4;
3, 1; 2,12; 1,4; 3,2.

Further answers were:

80,40; 50,10; 10,25; 20,15; 25,50; 10,20;
20,20; 75,20; 10,25; 10,10; 25,50; 60,40;
10,25; 5,20; 18,25; 15,25; 10,15.

To the first question the general average is between 3 and 7.

To the second question the general average is between 4 and 7.

Accompanying some answers were found the statements:

In the district in which I teach the boys go into the factories, girls take business courses. Few go to high school. Most of those who have their minds made up are among the ones favored by wealth and position.

I shall next add a letter of Mr. Edwin L. Shuey, of Dayton, Ohio, who has had much experience in a college faculty as well as in a large factory:

Answering your questions in a somewhat indirect way, I may say that before advising any boy regarding his course of study, it would seem necessary to me to know the boy. Of course this ought to be the duty of the parents, but unfortunately nine tenths of the parents are incompetent to advise their own boys. Every school principal, therefore (in district schools), should have some ability for giving this advice. Every high school should have one or two men prepared by training and ex-

perience to be advisers to the boys who enter the school, regarding work to be undertaken. As a matter of fact during the first two years of high-school life the majority of boys probably have no idea regarding their own particular ability or the vocation which they propose to follow. School advisers are therefore important not only for the beginners, but for the young men who are entering the higher classes of high school.

My own belief is that the first years of a high-school course particularly should give a general knowledge of a number of subjects, even though that knowledge be not as thorough as specialists would desire. Also in the curriculum certain subjects may be taken regarding which the boy should have thorough knowledge.

It seems to me that at present in the minds of many parents, and probably teachers as well, too much emphasis is placed on preparing the boy to earn a livelihood and not enough upon preparing him for citizenship. Good citizenship means a knowledge of history, general as well as American, and a training in ability to think, analyze and make proper conclusions. There is too much inclination to specialize from the beginning of the high-school course, rather than to lay a good foundation of broad knowledge to be followed by the specialization.

If I may draw my conclusions from quite a little experience with young men in office and factory, as well as in professions, I would say that the high-school course should include something of the classics and the essentials of mathematics as well as history, rhetoric and logic. A study of language seems to me particularly important, not so much for the direct use of the language in after life as for the training which a proper teaching of language is sure to give. The usual high-school mathematics it seems to me should be required of all students, even though they may not have special ability for the higher forms of the study.

It may be inserted here parenthetically that Dean Herman Schneider, of the engineering college of the University of Cincinnati, devised a plan of engineering education, which for lack of a better name he has called the *co-operative system*. The plan provides alternating bi-weekly periods of scholastic work and practical engineering work in shop, foundry, railway construction, etc. The system might more accurately be termed a *coordinated system*.

Dean Schneider's task would be greatly

simplified, if some means could be devised to discover the natural bent of each student who enters his college. In order to ascertain if this could be done by psychological methods he induced Professor Breese, of the department of psychology, to inaugurate a series of tests of engineering students of known abilities. These tests were among those found in the usual psychological categories. After three years of experimental work neither Dr. Breese nor Dean Schneider has been able as yet to find any correlation between the psychological results and the known abilities.

In a lecture "The Problem of Selecting the Right Job" (published June 9, 1915, by the National Association of Corporation Schools) Dean Schneider said (see p. 7 of that lecture):

The conclusions to which our analyses and experiments have forced us are the following:

1. The psychologists' definitions do not define and the tests are merely further restricted definitions of the definitions.

2. The methods do not appear to be scientific in that too many indeterminate variables enter into the results.

3. The psychologists of the school advocating direct vocational guidance by restricted psychological tests of short duration have not yet proven their proposition. They have merely asserted it. The burden of proof rests on the psychologists proposing the method. It does not rest on any one to prove they can not do it. So far, they have not established their case.

4. Our psychologists have not yet discovered a correlation between the results of the tests on our cooperative students and the abilities they have so far established; those of us who are not psychologists but who have studied the tests used have failed to find any connection after a diligent investigation.

On page 15 of this lecture Dean Schneider said in his general conclusion:

There is a movement in the country for direct vocational guidance in public school systems which has the endorsement of some public school superintendents. We believe for the reasons given in this memorandum that this movement possesses elements of danger for the very simple and significant reason that not enough is known to warrant any man in saying to a child, "This is your job, and that is not your job." We are convinced that

the few experimental psychologists who propose the use of their science in direct vocational guidance should frankly confess that the limitations of their science should warn against its use at present for such purposes.

I may next add a letter of another very eminent surgeon, Dr. Joseph Ransohoff, of Cincinnati:

If I have refrained from answering your letter before this, it was because I wanted to give the subject the attention its importance calls for.

I do not question now but that in a high-school course the average boy should have a general course, requiring some classics, mathematics, at least plane geometry and one modern language. It goes without saying that the course in English should be as thorough as time will permit.

My reasons for preferring the course indicated (No. 4) are the following:

First, up to the fifteenth or sixteenth year, the average boy who goes to a high school can have no idea as to the work he expects to follow later in life.

Second, a general course of the kind indicated will give the boy a general knowledge which will later permit him to develop along certain lines, as his bent or necessity may indicate.

Third, such a course makes the possibility at least of a general "culture," which will permit him to indulge in one or other intellectual hobby later in life.

I would above all things not exclude mathematics, but make it compulsory in every high-school curriculum, because it is after all the only study which will inculcate into the young mind that absolute precision is among the human possibilities.

The Hon. Charles Theodore Greve, of the Cincinnati Law School, writes:

A thorough knowledge of a few studies is most important; this should be accompanied by a general knowledge of many to the extent that this does not sacrifice the thorough knowledge of the few.

History, valuable as it is as a training, is not comparable to mathematics or classics.

I have specialized in history and economics, but they can never take the place of classics or mathematics. Both are essential and there are no possible substitutes for either.

An experience of many years of study and teaching young men has confirmed my belief in these

two subjects as the essential ground work of any education that is to be of value for any subsequent career either professional, scientific, business or mechanical.

Finally I insert a letter from the Hon. Roscoe Pound of the Harvard Law School:

I am returning herein the blank questionnaire upon which I have indicated my views.

I believe I may speak upon this matter without any particular prejudice, since my own training in college was largely scientific and I have since worked along lines as diverse as botany and the law. From experience as a practising lawyer and as a teacher and from reflection I feel confident that American education is entirely upon the wrong track in endeavoring to impart information about everything. Those professional schools conspicuously do the best work which make no attempt to carry a student over the whole field of knowledge involved in his profession, but instead train him intensively in a relatively narrow field. Again, the highest type of American scholar has been the result almost uniformly of what would to-day be regarded as a very narrow preliminary training followed by self-teaching in the scholar's chosen field. Look, for instance, at the great engineers of a generation ago who came forth from the utterly narrow instruction at West Point as we should now deem it.

The two things which appear to me to be required of secondary education are, first, such linguistic training as to give the student a real control over language, which is the instrument of thought; and second, some sort of training which will form settled mental habits of accuracy and thoroughness during the student's formative period. I believe mathematics will achieve the latter result as nothing else may. Personally I never liked mathematics and worked at my mathematical studies simply because I had to. On the other hand, I am sure that even under such circumstances they were of very high value to me not because I have ever remembered any thing which I ever learned, but because I was compelled to see to it that two and two make four instead of presenting plausible arguments for the position that they might make five. Probably study of any foreign language helps to give that grasp of language which is the foundation of all thorough-going thought. But I suspect that Latin particularly is the language which should be used for that purpose.

I do not feel competent to suggest what the other studies should be and should be willing to make

many concessions as to the rest of the curriculum. What seems to me most important is that whatever else is done for the student he is compelled to think critically, to express himself accurately and to form habits of doing things thoroughly rather than plausibly. I do not believe that premature courses in economics and social science, for example, given to high-school students conduce to these things.

In conclusion I may add what the Rev. Charles F. Aked, D.D., LL.D., of San Francisco, writes:

As I choose most emphatically the course No. 4,

I should like to be allowed to add that I am opposed to the facilities for choice granted by so many optional courses to pupils of the high-school stage. I dislike the very idea of choice until a later stage. If a boy manifests a strong indisposition to a particular study and seems to manifest also inability for that study, I should say that this is the particular study to which he must apply himself. I have no desire to shut him out from the studies he loves; but until he is well on with his university course I have a very strong desire to shut him in to the studies he hates.

HARRIS HANCOCK

UNIVERSITY OF CINCINNATI

BUSINESS MEN

	Course	A	B
John Allen	No. 4	Yes	No
Thomas W. Allen	No. 2	Yes	
Wm. H. Alms	No. 2	Yes	No
Wm. F. Anderson	No. 2		Yes
L. A. Ault	No. 2	Yes	
James Bullock	No. 2	Yes	No
John A. Church	No. 4	Yes	
Louis J. Dauner	No. 4		
T. J. Davis	No. 2		Yes
Mrs. Harry Dunham	No. 2	Yes	No
Edward S. Ebbert	No. 2		Yes
E. W. Edwards	No. 2 or 4	Yes	
Thomas P. Egan	No. 4 or 2	Yes	
Franklin T. Ellis	No. 4		
George Eustis	No. 4	No	Yes
John C. Gallagher	No. 2		
Fred A. Geier	No. 4	No	Yes
Edwin Goshorn	No. 2		
James A. Green	No. 4		
Wm. Guckenberger	No. 4	Yes	
Geo. W. Harris	No. 2	No	Yes
C. L. Harrison	No. 2		Yes for the average boy
James C. Hobart	No. 2		
N. D. C. Hodges	No. 4		
H. H. Hoffman	No. 4	No	Yes

BUSINESS MEN (Cont.)

30

	Course	A	B
Henry Hunt	No. 4	No	Yes
R. F. Johnston	No. 2	No	Yes
R. K. La Blond	No. 2		Yes
Chas. J. Livingood	No. 4	Yes	No
A. McLean	No. 4	Yes	
Wm. B. Melish	No. 1	No	Yes
T. C. Powell	No. 4	No	Yes
Victor Price	No. 4	Yes	
Geo. Puchta	No. 4	No	Yes
W. F. Robertson	No. 4	Yes	No
John Shuff	No. 2	Yes with few exceptions	Yes occasionally but not often
John V. Stephens	No. 4	Yes	
N. W. Strobbridge	No. 4	No	Yes
Walter J. Wichgar	No. 1		
Chas. Windisch	No. 1 or 4	Yes in high school	Yes in college
H. C. Yeiser	No. 2	No	Yes

THEOLOGIANs

	Course	A	B
H. Crane	No. 2 or 4	Yes	Yes
F. K. Farr	No. 4	Yes	Yes
Levi Gilbert	No. 1	Yes	No
Charles F. Goss	No. 4	Yes	
John F. Herget	No. 4	No	Yes
Jacob W. Kapp	No. 2 or 4	No	Yes

	Course	A	B
F. M. MacMillan	No. 4	Yes	Yes
Edward Mack	No. 4		Yes
Charles L. Neibel	No. 2	No	Yes
Frank H. Nelson	No. 4	No	Yes
David Philipson	No. 4	No	Yes
Charles G. Reade	No. 4	Yes	
Silby Vance	No. 2	Yes	Yes
Boyd Vincent	No. 1,2 or 3	Yes.	Yes
E. P. Whallon	No. 4	Yes	Yes

LAWYERS

Messrs.	Course	A	B
Alfred B. Benedict	No. 2	No	Yes
John E. Bruce	No. 4		Yes
Richard Ernst	No. 4		
John Galvin	No. 4	Yes	
Charles Theodore Greve	No. 4	Yes	Yes
L. J. Hackney	No. 4	No	Yes
Thornton M. Hinkle	No. 4	Yes	Yes
George Hoadley	No. 2 or 4	No	Yes
Harry M. Hoffheimer	No. 2	No	Yes
Charles J. Hunt	No. 4		
Ferdinand Jolke			
Simeon M. Johnson	No. 4		Yes
Malcolm McAvoy	No. 4	No	Yes
W. H. Mackoy	No. 2 or 4	No	Yes
Stanley Matthews	No. 4	Yes	Yes

LAWYERS (Cont').

32

Messrs.	Course	A	B
Max B. May	No. 4		Yes
Albert Morrill	No. 4	Yes for the average high school boy.	Yes for the University student.
J. W. Peck	No. 2	Yes	
Robt. C. Pugh	No. 4	Yes	No
C. D. Robertson	No. 2 or 4	No	Yes
W. P. Rogers	No. 2		
Murray Seasingood	No. 4	No	Yes
Dudley V. Sutphin	No. 4	No	Yes
Chas. B. Wilby	No. 4	No	Yes
D. D. Woodmansee	No. 2	No	Yes
W. Worthington	No. 4	Yes	No

PHYSICIANS

	Course	A	B
Sam Allen	No. 2	No	Yes
Edward R. Baldwin	No. 2 or 4	No	Yes
C. L. Bonifield	No. 4	No	Yes
A. C. Bachmeyer	No. 2,4	Yes	
Arch. I. Carson	Elective	No	Yes
Harry Dunham	No. 2	No	Yes
J. H. Eichberg	Elective	No	Yes
Dr. Grieve	No. 4	Yes	
C. R. Holmes	No. 2	Yes	Yes
Oliver P. Holt	No. 4		Yes
Samuel Iglauer	No. 2	No	Yes

PHYSICIANS (Cont').

33

	Course	A	B
F. W. Langdon	No. 2	Yes as an aid to expansion.	No rather than contraction.
E. W. Mitchell	No. 2	No	Yes
Wm. D. Porter	No. 4	Yes	Yes
B. K. Rachford	No. 2		
Dr. Ranschoff	No. 4	Yes	No
Robert W. Stewart	No. 4	No	Yes

MISCELLANEOUSNo Names Signed

Course	A	B
No. 4	Yes	No
No. 2	Yes	
No. 2		
No. 2	No	Yes
No. 2	No	Yes
No. 1	No	Yes

2220

With the addition of the names of the Cincinnatians the above is found in School and Society, loc. cit.

Other letters and comments follow. These were for the most part jotted down in the spaces left blank in my questionnaire.

NON-RESIDENTS OF CINCINNATI.

BUSINESS MEN

Mr. Louis Annin Ames chooses No. 2 and wishes to see History substituted for the Classics.

"I believe a thorough knowledge of fundamental subjects and a general knowledge of the classics is best, for then you have the ground-work for a superstructure for any polish or finish in the Arts, Sciences, and Literature."

Mr. Frank B. Anderson prefers No. 2 with History and English.

"I believe that a student in gaining a thorough knowledge of a few subjects will have acquired a habit of study and application which will, as time goes on, make it easy for him to pick up a general knowledge of such other subjects as are necessary to aid him in rounding out his life."

Mr. W. K. Binby:

"A child or man must know mathematics and especially arithmetic. We have had too much of passing over arithmetic and getting into algebra and geometry. Arithmetic should follow geometry. The pupil should not be graduated with a smattering of it obtained in his grammar-grade and first year of high school. The classics are desirable, but the "three R's" should have more attention than in the past. History is important; Grammar and English Literature very important. A thorough knowledge of the essentials is far more important than skimming over a wider range. If the pupil has the inclination he will get the wider range after graduation and if he has not the inclination the skimming over a wide range will be barren of results."

Mr. Joel W. Burdick:

"I prefer course No. 4 with the addition of one modern language (optional) and instruction in literary construction. This I consider of great importance from a practical point of view. Also the habit of oral expression should be acquired, and I believe a department devoted to instruction in oral expression should be a part of the curriculum of every high school. The ability to present a clear and logical oral statement is most useful in every walk of life."

Second question. Yes; "Qualified with such general knowledge of other subjects as the capacity of the student to receive. If he has the ability to learn a few things thoroughly, his general knowledge should expand automatically. I would incline to a substitution of modern languages for the classics according to the bent of the individual student."

Mr. Chas. Calwell:

Question (A) (Not too large a number of subjects).
Question (B) (A thorough knowledge of practical branches).
General knowledge of advertising:

Mr. Benj. Carpenter suggests either No. 2 or No. 4.

"American Political History, French, German or Spanish should be required, if the classics (Latin and Greek) are omitted. English should be required both spoken and written.

My experience as a merchant makes me put special emphasis on good English - well expressed and well written. The penmanship of our high school boys is awful.

In a high school course a good general knowledge of a number of subjects is preferable."

Mr. Wm. L. Clause desires an elective course.

Question (A) Yes, provided the course is elective.

"If the high school student has a real taste for knowledge, he will pursue his studies through life along those lines in which he is interested."

Mr. Chas R. Flint prefers No. 3.

"The most important study is the study of the English language and therefore the classics should be required."

Mr. James B. Forgan, Pres't. First National Bank, Chicago:

"I am inclined to favor No. 4 believing that both the classics and mathematics should form part of the boy's course in high school. I feel, however, that my opinion carries little weight as I have never been in sufficiently close touch with educational matters to enable me to form an accurate or very positive opinion. I presume that boys are supposed to be sufficiently grounded in the "three R's" before they enter high-school, but my experience is that, if this is so, during their high school term they must forget a good deal of what they previously learned. I would like to see high-school graduates better grounded in their elementary education and able to write legibly, spell correctly and be more accurate and expert in simple arithmetical problems."

Wm. H. Gardner chooses No. 1.

"The boy can later make choice according to his plans for the future."

Mr. J. J. Glessner prefers No. 4.

"Capacity of individual students and conditions make options desirable, but this is not safe without good advice."

Mr. Walker D. Hines, Chairman Exec. Com. of the A. T. and S. F. R. R.:

"It is more satisfactory to answer by letter than by filling the blanks in the form you sent me. In my judgment, I would advise a boy in a high school to take a course where mathematics, to the extent at least of the elements of algebra, geometry and trigonometry, is required and where the classics are optional. My reason for this view is that unless a boy gets the elements of these three mathematical studies at school, he will never get them at all, and therefore will never have a basis for any business involving knowledge of those studies. I do not think these considerations apply to the classics.

You make the further inquiry as to whether I believe in a general thorough knowledge of a great number of subjects or in a thorough knowledge of a few subjects. I construe this inquiry to be confined to the knowledge to be imparted or developed in the high school. My judgment is that it is preferable to give the pupils a good working knowledge of

a few fundamentals. Among these fundamentals I class the three mathematical studies above mentioned; also physics; also at least one foreign language. Of course, there are others, but the ones I have mentioned appeal most strongly to me as important bases for general culture.

I seriously doubt the wisdom or the policy of including courses in a great variety of subjects which are not necessarily fundamental. It seems to me that the one great evil to be avoided is the evil of lack of thoroughness. If the pupils are given a smattering of a great variety of subjects, I am disposed to assume that the result will be that the natural disposition toward lack of thoroughness will be encouraged. I strongly believe that a thorough working knowledge of a few basic studies will furnish a much better equipment for business or for the pursuit of culture than the more ambitious and necessarily less thorough policy of instruction in a great variety of subjects."

Mr. Henry Holt prefers No. 4:

"The classics should be taught with only enough of the languages to trace etymologies and carry the standard quotations; mathematics through trigonometry; history as instruction in politics, if textbooks can be had; and economics and taxation; if any time is left, French and German, perhaps Spanish in view of Mexico and Cuba."

Question (A) Yes. "He will select his own specialties later, if he has the head for any."

Mr. J. Kruttschmitt chairman Exec. Com. of South. Pacific R.R.: advises No. 2, "because of training the reasoning powers by study of mathematics."

Question (B) Yes; "but a boy should try to acquire a general knowledge of a great number in addition, but not by sacrificing first requirements."

Mr. Andrew MacLeish:

"I would recommend No. 4 and also include History. To me it seems questionable whether (unless in very exceptional cases) the boy should be permitted the exercise of much choice independent of the instructor."

Mr. Joshua B. Lippincott chooses No. 4 and in addition Physics, History and English Grammar.

Question (A) "It depends upon what the scholar intends to do for a living; for the future business man, a general knowledge of a number (not a great number) of subjects."

Mr. M. L. Milligan prefers No. 4:

"These lopsided fellows who know nothing outside of their specialties make very unprofitable citizens."

Mr. Effingham B. Morris, Presd. Girard Trust Co.:

"The answer to your question would seem to me somewhat dependent upon what the boy intends to do after leaving school

If he goes to college, a school course might embrace Latin, Greek, History, Mathematics, and a modern language.

If he is obliged to go direct from school into mercantile business, then: Latin, History, Mathematics, and Spanish or French.

If he goes from school into a shop or any technical trade, then: Latin, Mathematics, History, and German or French.

Thorough knowledge of a few subjects as a foundation would seem preferable to a smattering of many. If the boy desires further study, he can find opportunity after leaving school."

Mr. Chas. A. Otis chooses No. 4, and remarks that

"A boy should have a good general knowledge to prepare him for his special courses later."

Mr. Frederick J. Paxon:

"Number 4 appears more definite and cultural and hence is my choice."

Mr. Seward Prosser emphasizes No. 4, with English, Literature and Letter Writing.

Question (B) No. "broaden out in the early education and specialize afterwards."

Mr. Blanchard Randall suggests No. 4 for two years

"to be followed by modern languages and history into college."

Mr. Wm. A. Robinson:

"I recommend this course (No. 2) taking it for granted of course that the ordinary English branches would be included. An intelligent boy would naturally take up Classics later, after a good start in active business life."

Mr. F. W. Scott prefers No. 4 as first choice and No. 2 as second choice.

"In addition, English Literature, History - especially American History."

Question (A), Yes. "It is possible that exceptions to this should be made in cases of students intending to enter certain professions."

Mr. A. L. Shapleigh:

"For an education for business he prefers No. 2 with history, geography (commercial), spelling and penmanship."

Mr. Edwin L. Shuey:

"In general I believe this (No. 4) to be the best course for the great majority of boys. Perhaps the classics might be omitted in the fourth year by those who seem to have little or no inclination to become proficient in languages."

See his letter printed on page 5 of insert.

Mr. Judd Stewart:

"In my opinion mathematics should be in all courses a required study and classics optional."

Mr. C. P. Walbridge prefers No. 2, history required, and other studies optional.

Mr. Morris Whitridge recommends No. 4 with some history, always requiring mathematics.

"I am a business man but my classics has been a help to me from an aesthetic point of view, while my mathematics trained my mind and makes me decide accurately when a prompt decision is necessary in these days of high tension in business. I am a strong believer in Greek, Latin, Mathematics and the old fashioned method of education. We have too many frills these days."

Mr, Daniel Willard, Presd. B and O. R. R.:

"I would prefer a course in mathematics and history rather than any other combinations suggested.

In the lower schools, and possibly up to and including the high school, I should favor a general knowledge of a number of subjects; later on, a more thorough knowledge of a few subjects."

Rev. Chas. F. Aked prefers No. 4 "without hesitation".

"As the ideal contemplated by an educational course should be to know 'something about everything and everything about something', it seems to me that the high school course might very well turn its attention to the first half of it, namely: 'something about everything.' It is manifestly impossible for a pupil in a high school to specialize in any effective way.

Rev. C. F. Anderson chooses No. 4 including history.

Question (A), Yes; "a foundation in high school with optional subjects for college."

Rev. L. W. Batten recommends No. 2 with natural sciences and history.

Rev. W. C. Bitting advises No. 4 or No. 2.

"In answer to your inquiry which came this morning, my personal advice to a boy would be to take the course No. 4 indicated in your questionnaire.

Next to that I should advise Course No. 2.

I do not think that the same course could reasonably be required for every High School pupil. It would depend upon the pupil altogether.

The culture of the analytic and logical faculties should be made, where these are deficient, by insisting upon mathematics.

Likewise I should insist upon the use of the classics where these will meet the deficiencies of the pupils.

The difficulty about a general knowledge of a great many topics is that it is hard to obtain and when an effort is sought to secure it the results are not only meager, but also are apt to lead the pupil to substitute superficiality for thoroughness.

I do not believe that there is any such thing as a thorough knowledge of a few subjects. There is of course more or less intelligent acquaintance with a few topics, but this is by no means thorough, and we should not allow pupils to get the idea that they are masters in any department of knowledge. Every real student is an eternal disciple."

The last remark of the learned theologian applies in particular to every teacher.

Rev. George Hodges:

"The thorough knowledge of the few belongs to the technical or professional school, on the broad foundation laid by previous general study."

Bishop Edwin D. Hughes:

"None of the options quite cover my own idea. I believe in encouraging No. 4, but would allow for exceptions. I believe in a general knowledge of a number of subjects and in a thorough knowledge of a few, especially one subject."

Rev. D. E. Jenkins:

"Depends on the boy. There is no average boy, perhaps the circumstances and aptitudes of boys are usually quite specific and determinate. If it were my boy about whom you were inquiring, I would say No. 4."

Rev. Carter Helm Jones:

"I would prefer this (No. 4) for the average boy. Other courses of study would depend on the boy."

Question (A) Yes.

Question (B) Yes.

"I have indicated my answer to the above questions because I believe both in generalization and specialization. I think whenever possible a student should generalize before specializing."

Rev. Warren A. Landon of San Francisco recommends No. 4

saying:

"I prefer general culture at high school age, because the pupil at that age rarely ever knows what his future is to be. What he needs in my opinion is not facts or detailed knowledge but culture of the mind."

Rev. M. A. Matthews prefers No. 4 "by all means".

First (Yes).

Second (Yes and for specialists).

Rev. James K. McClure advises No. 4 "with History -- Grecian and Roman in a general way, English and American in a particular way, English Literature, Astronomy, Geology, Botany and Sociology."

Bishop Francis McConnell:

"I do not see how any general rules can be laid down. The best results seem to me to be likely by a system of organization which makes possible some "trying out" of the individual boy in the first year of high school and then an adaptation of the course in the light of the results obtained."

Bishop Wm. F. McDowell:

"It would all depend upon the boy in my opinion. My preference would be No. 1."

Rev. Wallace Radcliffe advocates No. 4.

"I believe the whole system of optional studies for the youth is wrong. Youth is inexperienced and needs intelligent authority and direction. Its spirit is strongly materialistic and selfish and preventive of true development and power. After the young manhood is obtained and the life work decided upon, the option may be allowed with advantage, but not before."

Rev. Robert W. Rogers emphasizes No. 4 "by all means."

Rev. W. Merle Smith:

He prefers No. 4.

Question (A) Yes.

Question (B) No.

"I do not believe in too early specialization certainly not in high schools."

Bishop David Tuttle:

"I should advise, unless strong personal predilections pointed otherwise, No. 4."

Bishop John H. Vincent prefers No. 4 "by all means".

"The High School should anticipate and prepare its pupils for thorough work in the studies that make for symmetrical education and insure early in life the broader view of culture."

Question (A) (Yes).

Question (B) (Yes for Discipline and Power); "to be acquired through the after-college and adult years. But to be begun during the formative years; otherwise these studies overlooked and neglected in school years are in danger of being always depreciated."

Rev. Charles Wood recommends No. 4.

Question (A). Yes.

Question (B). No.

"The average boy needs general culture as a foundation. Specialization should be reserved for more mature scholars."

Physicians

Dr. E. L. Bradford prefers No. 4.

"Understanding by classics, liberal studies and by mathematics, physics in addition to pure mathematics."

Dr. Lawrason Brown recommends No. 4.

Question (A), Yes.

Question (B). No.

"The high school is not a place where a future medical student should begin to specialize."

Dr. George Dock prescribes No. 4 with History, English, biology, chemistry, German or French.

Dr. W. C. Gorgas:

"I would allow boy to choose courses."

Dr. W. D. Gatch suggests No. 4, with General History and United States History, and a thorough course in English.

Dr. W. W. Keen chooses No. 4.

"By all means this if possible. But there are some - not very many - who so detest mathematics or whose minds do not comprehend mathematics that for such No. 3 would give better results."

Dr. Wm. J. Mayo advises No. 3 as high school preliminary for the profession of medicine with Latin and Science.

Dr. Chas. Minor emphasises No. 4.

"Both for culture and for use in after life I consider classics and mathematics essential." To these he adds History, two modern languages, and one science.

He advises "For culture and practical use a general knowledge of a great number and a thorough knowledge of one subject."

Dr. M. M. Portis advocates No. 2 with history, English, German, French, physiology, physics and chemistry.

Dr. Theobald Smith:

"If we were able to make a prognosis of a boy's future capacities and tastes, I presume the answer would have to be individualized. On the whole, I believe mathematics and observational and experimental science the best occupation for the boy in intermediate schools. To these may be added English, the classics, modern languages as far as time and thoroughness permit."

Dr. R. L. Wilbur prefers No. 1, and recommends a modern language and a laboratory course or two in the Sciences, Biology, Chemistry and Physics with any other work desired which is well taught and of which enough is given to permit the student to acquire a sound basis upon which he can later build.

Dr. Cunningham Wilson prefers No. 2 or No. 4, preferably No. 4.

"If a high school boy has a general knowledge of many subjects I think he is more capable of acquiring special knowledge in after life."

Dr. John A. Wyeth prescribes No. 4.

"I think too much time is given to what we have gradually been taught to believe is 'education'. A fair acquaintance with Latin and Greek should be required. Only the essentials of mathematics unless one is to devote one's life to the most fascinating of all subjects, but as far as the affairs of life -- in the vast majority of lives -- this study is a waste of time.

A good country school for a boy from 8 to 15 and then crowd him to the end of his 18th year. This should end his punishment inside of walls.

College 4 years is for 95 of every 100 a misfortune. Life work should begin at 19 or 20 instead of 24 or 30. He is entitled to 40 years of action at least."

Lawyers

(In sending out the letters, the names of seventeen lawyers were overlooked).

Hon. S. S. Gregory:

"No general rule can be adopted. However for a lad whose circumstances admit of it and whose tastes so incline him I believe in this course (No 4). I regard it as specially desirable for those who expect to enter a profession.

The chief purpose of education other than vocational is to my mind to open the mind to knowledge and general information. If an intelligent youth at school or college acquires in the right way something as to various important branches of education, his interest in them is thus inspired and he appropriates, places and retains knowledge in those subjects which he acquired through life."

Hon. Wade H. Ellis advocates No. 2 with Latin or French, English, American History and Government.

Hon. Peter S. Grosscup prefers No. 4 and

"no other course until after graduation. Of course, if a boy is destined for engineer work or other similar work and cannot afford to go to college, I would suggest No. 2"

Hon. Frederick N. Judson:

"It depends upon whether he intends to go to college or into business without a college course. In either case I would prefer No. 2 to No. 1; and in case of a college course, I would prefer No. 4."

Question (A). Yes and if practical in a thorough knowledge of a few subjects.

The following letter is from the President of the board of trustees of one of our leading universities. He has contributed much time and large sums of money towards the advancement of the higher education.

(Confidential).

"I hesitate to express an opinion but from my experience with young men, I prefer # 4. In the average boy, the accurate thought in Mathematics seems to be necessary in all lines of work, while the ability to be interested in life seems to come from chassical studies more than from "practical" ones. My experience with most high school boys in business is that they lack imagination, have no broad view of what life really means, and no perspective. They are never able to be worth more than \$1200 a-year even after years of experience. If the average boy is given a thorough training in #4 and taught how to "sweat" mentally in getting it, I think he has the best chance of success."

"To have had no Latin," says Professor Paul Shorey, "means that you do not know the logic or understand the categories of general grammar; that you do not know and cannot safely learn from a lexicon the essential and root meanings of English vocables; that you cannot guard yourself against the use of mixed metaphors; that you are mystified by the variations in meanings in Shakespeare, the Romance languages and modern English; that you cannot even guess at the meaning of countless technical phrases, familiar quotations, and proverbs, and compendious Latin formulas that are so essential a part of the dialect of educated men that the fiercest adversaries of the classics besprinkle their pages with misprints of them; that Rome is as remote to you as China; that French literature is a series of unintelligible allusions; that travel in Italy loses half its charm; that you cannot decipher an inscription in Westminster Abbey, on Boston Common, or on the terrace of Quebec; that, not to go back to Milton and the Elizabethans, who are unintelligible without Latin, you cannot make out the texts from which Addison's Spectator discourses, you do not know half the time what Johnson and Boswell are talking about; that Pope and all the characteristic writers of the so-called Golden Age are sealed books to you; that you are ill at ease and feel yourself an outsider in reading the correspondence of Tennyson and Fitzgerald and even in reading Thackeray's novels."

Business Men

Mr. John John Allen advises No. 4 with Mathematics, English Literature, French, German, Spanish, Latin, History, Elementary Economics and Civics, Bookkeeping and accounting (optional).

"At high school the student should be taught a great number of subjects and in this way be given a good broad foundation for knowledge. He will have plenty of time later on to specialize in a few subjects.

"Before answering your questions I consulted with my son and a classmate of his, both graduates of Yale. They are now in the mercantile business. We all agree on No. 4."

Mr. Thomas W. Allen prefers No. 2 with modern languages (Spanish preferred) history and one science.

"The above for the average boy who finishes his school days with high school course."

Mr. Wm. H. Alms:

"I believe in a course where mathematics is required and classics optional."

Mr. Wm. F. Anderson:

"I regard a training in mathematics as better preparation for a boy today than the study of the classics. If only two subjects can be thoroughly studied, why not mathematics and science?

Question (A). "If this alternative is necessary, I should say a thorough knowledge of a few subjects."

Mr. L. A. Ault chooses No. 2.

"For all American, learn Spanish, then French and German."

Mr. James Bullock chooses No. 2.

Would prefer this course with United States History, English History, Languages (French or German). No Latin or Greek."

Dr. Howard Ayres:

"It would all depend upon the boy and his purpose in life. The two most important elements in choice of studies for youth of high school age, are first the boy and second the teacher. The personality and capacity of the teacher is more important than the question of the number of subjects. In general the value of mathematics is greater than that of the classics to the youth of today."

Mr. John A. Church prefers No. 4.

"From a business man's viewpoint, graduates of our high schools should have some general knowledge of commercial forms, customs, efficiency, etc. No matter what work the boy takes up, he should know something about commerce."

Mr. Louis J. Dauner (Acting Mayor) answered the questions sent to Mayor Spiegel as follows:

"As primary education is generally understood to have been completed when the pupil reaches the high school, I am of the opinion that his parents or other adults capable of judging his talents or bent, direct him in the selection of the subjects to be taught which best fit the pupil. If this deduction is impossible, then the most comprehensive course is advisable, which would be indicated as No. 4 on your list."

Mrs. Harry Dunham prefers No. 2.

"I think the sciences are more important in this age than either higher mathematics or the classics. I prefer modern languages after one year of Latin or Greek. I believe in a general knowledge so that a boy may intelligently choose the subjects in which he desires or needs thorough knowledge. If he has, at high school age, chosen his life work, I think he should have the right of partial but not complete specialization along that line."

Mr. Edward S. Ebbert recommends No. 2.

"This would be my preference for any boy. The 'three R's' need emphasis up to Commencement Day."

Mr. E. W. Edwards suggests either No. 2 or No. 4.

"No. 2: This, where the student does not know his future occupation.

No. 4: This, if the student intends to be a professional man.

The more general knowledge he has, the greater his chances for building up after he leaves school."

Mr. Thomas P. Egan prescribes either No. 4 or No. 2.

"No. 2: for business, you must have mathematics.

No. 4: yes, but by all means have mathematics."

Mr. Franklin T. Ellis:

"I do not favor an optional course in the public high schools until after the second year of the high school. I regard the public high schools of our country as the people's colleges and believe, in general terms, in the course No. 4 on this sheet. But after passing the second year in the high school, if a student has some special profession or trade or business in view, I should advise that he might take some optional studies after the second year, in accordance with his plans for the future. I believe that all students should be required to make some acquaintance with the Classics, with Mathematics, and covering at least an equivalent of four or five books of Caesar in Latin, and have a good knowledge of Algebra and Geometry."

Mr. Jno. C. Gallagher:

"This (No. 2) is the course I would take and recommend."

Mr. Fred A. Geier recommends No. 4 with modern languages, modern History, business courses and trade courses.

Mr. Edwin Goshorn:

"In making a choice of the courses which you indicate on this blank, I should select No. 2 as best of the four, if it were necessary to make a selection.

I believe it to be essential for every boy to have a training in mathematics, no matter what his subsequent business or profession may be. If his education is to be continued by a university course, it will be essential to have a certain amount of training in the classics unless the boy has elected to take a technical course only.

It is opinion that the real place to determine what should be the course of education for the boy, is in the common schools, where he is supposed to have an education which covers six years and during that time his teachers should become intimately acquainted with his capacity and know in just what branch of education he should be developed."

Mr. James A Green advises No. 4 with Modern Languages, French and German.

Mr. Wm. Guckenberger selects No. 4.

"I believe our youth should take a course requiring the classics and mathematics. A commercial course should also be taken to give them some idea of business as it is carried on in our country.

(Question A). This thorough knowledge will do for a man who wants to specialize."

Mr. George W. Harris recommends No. 2.

"I am an advocate of the principles urged by Spencer in his work on 'Education'."

Mr. C. L. Harrison chooses No. 2.

"I would advise this with further option of Physics, History and Chemistry. I would touch lightly on the Classics."

Mr. James C. Hobart advises No. 2.

"If history were substituted for classics, I believe this course most generally useful.

I believe that studies should be arranged with the idea and the purpose of developing the students' natural gifts and that the privilege of 'options' should be based on proficiency in the elementary subjects leading up to any optional course and not left unconditioned to either student or parent. As suggestions for additional courses would note the importance of foreign languages and modern accounting."

Mr. N. D. C. Hodges, Librarian, prefers No. 4.

"The course of classics and mathematics served a good purpose for many generations."

"Nothing should be optional with a high school boy.

I am going to venture what has been termed my good sixteenth century pedagogy. I am of the opinion that the elementary schools have just one lesson to teach. That lesson is the power of application to disagreeable tasks. To put it boldly, the function of the elementary schools is not to impart knowledge, but to train the pupils so that they later can and will apply themselves to the acquisition of knowledge. When I was in the high school, I had to study the classics and mathematics. I enjoyed the mathematics, I hated the classics. My four years in the high school and my freshman year at Harvard contained no electives. I hated the classics to that extent that I resolved that I would never look at a word of Latin or a word of Greek after I was once free. To-day I am more thankful for having my nose kept to the grindstone during those five years than for anything in my earlier education. I kept my resolve about not reading Greek or Latin for a number of years, but saw the folly of it long ago."

Mr. Henry Hunt advocates No. 4.

"We need mental discipline. At the present time education is too soft for the average student. Mathematics makes the mind a living engine (and not a sponge) to do work, and classics give joy and color to life."

Mr. R. F. Johnston suggests No. 2 with Salesmanship, Manual Training, Manual Art and a Business Course.

Mr. Chas. J. Livingood emphasizes No. 4.

"Both Mathematics and the classics are fundamental, also history especially of the United States."

Mr. T. C. Powell prefers No. 4 including history and geography.

"I believe that the prevailing fault in our present system of education is the lack of accuracy, and until the corps of teachers overcomes that prevailing fault, a large proportion of the teaching will be utterly wasted.

In voting in favor of No. 4; that is to say, a course requiring both the classics and mathematics, and including history and geography, I may appear slightly in conflict with my second vote against a general knowledge of a great number of subjects and in favor of a thorough knowledge of a few subjects.

The best incentive is a feeling of competition with some one else, and among those schools which I attended those which made a feature of this competitive spirit throughout the daily recitations, and not simply once a month or at the periods of examinations, produced, in my opinion, the best results.

We are living in an age of specialists and it sometimes appears as though accuracy is regarded as a special course and that only those who intend to devote their business or professional life to accurate mathematical and chemical calculations are justified in paying much attention to accuracy.

But when you realize that when a boy has been taught in the public schools and goes into the business world, the first course through which he is put is one which is intended to impress upon him the necessity for accuracy, you will appreciate that this is one of the crying needs of the present system of education.

It is for this reason that I vote in favor of classics and mathematics and for history and geography. These studies are more likely to insure accuracy than a slight knowledge of a great many subjects.

Mr. Victor Price selects No. 4 with a modern language in addition.

"I have felt for a number of years, that we are tending too much toward specialization, although I realize that a very small percentage of the graduates of the high schools take a further educational course. The result of a number

of years observation leads me to believe that early specializing is a mistake, and tends to produce a narrow type of man. The specialist should be developed after a broad course of general education has been obtained to produce the best type of man."

Mr. John Shuff advises No. 2.

"Always include mathematics. Very few boys when entering high school know what is really best for them and the parents are generally swollen with pride.

Good English is, most of all, important and most neglected."

Mr. J. G. Schmidlapp is opposed "to what is known as the elective system of studies."

Mr. John V. Stephens suggests No. 4 with English, Science and History.

Mr. N. W. Strowbridge prefers No. 4 with Chemistry, Physics and Logic, "assuming that the boy is to leave school and go to work after the high school course and believing the important thing is to equip him to think and to think accurately."

Mr. Walter J. Wichgar takes No. 1.

"My opinion would favor a general knowledge of a great number of subjects up to the certain point only, after which specialized knowledge in a few selected subjects for which student seems best adapted."

Mr. Chas. Windisch recommends either No. 1 or No. 4.

He would recommend No. 1 if the boy was not going to continue his studies beyond the high school.

He would recommend No. 4 if the boy intended to go to college. He believes that more time should be spent on the study of Spanish.

Rev. H. Crane:

"No. 2; I think this course would be my first choice.
No. 4; Yes, if a boy has decided upon a course in life
that requires both classics and mathematics.
No. 3; A boy should have mathematics."

Rev. F. K. Farr advocates No. 4 with English, History, Science and German.

Rev. Levi Gilbert prefers No. 1 with "Domestic Science, Sociological (Intro.); Political Economics; Civics (Intro.); English Literature (General Survey); Romance Languages (Intro.); and German."

Rev. Charles F. Goss emphasizes No. 4 "beyond all question."

Rev. Jacob W. Kapp:

"No. 2: This course for a boy who expects to enter business life.

No. 3: This course for one who will enter college or University and will make a specialty of language.

No. 4: This course for one who expects to enter college or University and obtain a general education."

Rev. Edward Mack selects No. 4 with History (Ancient and American), English Literature, one modern language (German preferred), Elementary Science, Botany, Physiology or Zoology, Elementary Chemistry.

Question (B). Yes "with a view to acquiring method and application, in order to obtain the mastery of general knowledge."

Rev. Charles L. Neibel advises No. 2.

"A good deal depends upon whether the boy must be content with a high school education only, or whether he will be financially able to go to advanced schools. I recommend to add English, History, some Science, a modern Language and add such other subjects as certain conditions may indicate. Obviously the boy who is preparing for college or technical school needs a somewhat different course from the lad who will never go beyond the high school.

What is needed, is not a 'smattering' of many subjects but a firm groundwork in mental discipline that will develop his thinking power. In most cases I should recommend that a boy take at least one of the classics. In other cases I should urge both Latin and Greek."

Rev. Frank H. Nelson:

"I would advise No. 4 as I believe the classics of great cultural value and mathematics essential to clear thinking."

Rev. David Philipson:

"In addition to the requirements of classics and mathematics I would recommend English Literature, one modern language (French, German or Spanish), and one natural Science."

Rev. Charles G. Reade:

"No. 4. Yes, as in most cases the age of definite decision for life work has not yet arrived.

Question (A). Yes. I believe the age of specialization comes later and a good foundation in classics and mathematics is essential.

If a boy of high school age does not try both the classics and mathematics, how can he tell where his talent lies?"

Rev. Silby Vanco recommends No. 2.

"Depends somewhat upon the student. In general, mathematics required of all and some work in two of the four following languages: Latin, Greek, German, French. Additional required work in English, History, and one Science.

"I recommend a thorough knowledge of the above subjects for mental discipline, broad foundation and general culture, combined with a general knowledge of a number of subjects for information."

Bishop Boyd Vincent:

"No. 1; this, when there is no pronounced inclination toward either 'optional'.

No. 2; this, where the student shows a pronounced 'scientific habit of mind'.

No. 3; this, when the student has a decided inclination toward one of the 'learned professions'.

He believes in "a broad foundation, general intelligence at first and then specialization."

Rev. E. P. Whallon recommends No. 4 with General History, Composition and Rhetoric.

"An excellent rule for any student or professional man, is to learn as much as possible of one thing and something of many other things. Mastery in one department; some knowledge in many."

Dr. Sam Allen prescribes No. 2 with History, Science and modern Languages.

Dr. Edward R. Baldwin prefers either No. 2 or No. 4 with "more English in both of them."

Dr. C. L. Bonifield:

"I believe in No. 4, regarding mathematics as the best mental training and the classics of inestimable value to any one who uses the English Language. My severest criticism of the Public Schools is that their pupils graduate with a smattering of many things but a thorough knowledge of none. It gives them the habit of superficiality which is hard to overcome. The successful man is the one who can do some one thing better than his fellows."

Dr. A. C. Bachmeyer:

"No. 2; plus a thorough business training and with special subjects to prepare him for his chosen profession.

No. 4; for the boy intending to follow one of the professions.

I believe in an elementary knowledge of a number of subjects, such as is secured in high school followed by specialization later at college."

Dr. Arch. I. Carson:

"Depends on the after career. The course is of less importance than the method and teacher. The important things are to teach ability to concentrate and how to study; application."

Dr. Harry Dunham:

No. 2 is chosen with the hope that German and French may replace Greek and Latin."

Dr. J. H. Eichberg:

"A course should be selected to further the boys future intention."

Dr. John E. Grieve:

"I favor a course requiring both the classics and mathematics and furthermore a general knowledge of a great many subjects."

Dr. C. R. Holmes chooses No. 2.

"Nos. 3 and 4 depend upon what the student is going to take up for his life work.

In response to your circular I beg to say that to my mind #3 and #4 should depend upon whether the student has funds at his disposal that will enable him to carry out the courses which the higher education requires, or whether he should simply have a practical education. If he is to fit himself as a mechanic or foreman, I take it that his education should be different than if he expects to enter the engineering or even a business career, and certainly there should be a marked difference if he is going into the learned professions.

It appears to me that we are losing too much valuable time in giving some young men and women more education than is necessary for the stations which they are going to occupy in life, and not enough to fit them for different spheres, thereby frequently taking out of their lives two or three valuable years which might better be devoted to the practical side, and that most profitably."

Dr. Oliver P. Holt:

"I most heartily recommend No. 4 but it should not be too prolonged. The Natural Sciences should be taken in conjunction with it.

A thorough knowledge of a few subjects will produce the greater power of concentration and it will develop the reasoning faculties to a greater degree. The lack of these qualities seems to be the fault of modern systems."

Dr. F. W. Langdon:

"No. 2: First Choice. As a 'trier out' of capacity, mathematics seems most important. Therefore school-students should have opportunity for the foundations of mathematics. Probably few would be justified in following it up in a thorough sense later but this 'few' is important.

No. 4: Second Choice.

Question (A). Yes as an aid to expansion.

Question (B). (No, rather than contraction of interests), the ultimate tendency of later years being of necessity toward contraction.

Again a high school pupil could hardly be expected to obtain a 'thorough' knowledge of even one subject."

Dr. E. W. Mitchell:

"No. 2. I would have some science required -- classics optional with modern language."

Dr. Wm. D. Porter:

"I do not think it is possible to select a 'best course' for all students; as the natural bent of each should be considered. To be specific, I believe the best results would be obtained for the greatest number by combining Latin and Mathematics and to build up the remainder of the course with science or literature according to the ability and inclination of the student. I have talked with a number of successful men of good education, and a large proportion attach much importance to their grounding in mathematics and Latin."

Dr. B. K. Rachford prescribes No. 2.

"I believe in the high school course that every pupil should be required to take mathematics and that the remainder of the course should be optional; that is to say, it should be chosen with reference to the bent of the pupil's mind.

I believe that specialization in individual subjects should follow the high school course."

Dr. Robert W. Stewart emphasizes No. 4 "unquestionably"; and "these subjects until the student knows something."

Mr. Alfred B. Benedict advocates No. 2.

"No. 4: No, but second choice.

I believe that mathematics should above all other subjects be required, as it is the best known training for the reasoning faculties. Next come the physical sciences, as human beings should know the world they live in. If a boy is to go beyond the high school or is intended for professional or literary work the classics are essential."

Mr. John E. Bruce prefers No. 4.

"I approve this course (No. 4). French or German might be required instead of Greek, or in addition thereto."

Mr. Richard Ernst:

"I want both classics and mathematics and a thorough course in English."

Mr. John Galvin selects No. 4 "with as much history as can properly be added.

"After the high school course, then there should perhaps be a study of few subjects for thorough knowledge."

Mr. Charles Theodore Greve:

"A thorough knowledge of a few studies is most important. This should be accompanied by a general knowledge of many to the extent that this does not sacrifice the thorough knowledge of the few."

See his letter on page 7 of insert.

Mr. L. J. Hackney prefers No. 4.

"Other subjects would depend upon the capacity and environment of the boy and the choice of his life work."

Mr. Thornton M. Hinkle advocates No. 4.

"Possibly omitting Greek; adding a modern language and modern history depending largely upon the character of the boy."

Mr. George Hoadly writes:

"I am unable to answer your questions in exactly the shape they are put. I would say that courses No. 2 and No. 4 seem to me distinctly preferable to the others; but it would depend, to some extent, on how far the mathematical course is to be carried, and the answer would be entirely contingent upon two questions which you do not include in your questions:

First: Does the boy in the supposed case intend to carry his education beyond the high school stage?

Second: If he does, does he intend to enter a scientific school or college?

To a boy who does not intend to carry his education beyond the high school stage, I should recommend distinctly course No. 2. The practical value of mathematics to most people, the moment you get beyond elementary arithmetic, is nil; but their value as a training in accurate and logical thinking, if they are well taught, is very great, and the only substitute that I could conceive of as being of equal value is one that I do not believe is or can be well taught in any public high school in the United States - and that would be a really severe course in logic.

In addition I might say that while I think the training in accurate thinking, given by a mathematical course, is nearly, if not quite as valuable as that given by a course in logic, I think the average high school boy is sufficiently mature for a course at least in so much mathematics as may be included in the ordinary preparatory algebra and in those parts of Euclid ordinarily used in preparation for college and in the college freshman year; and such a boy is not sufficiently matured intellectually, in my judgment, to profit by a course in logic.

I also think that the Classics, and particularly Greek, are of great value for much the same purpose. A high school cannot teach, and the ordinary high school boy is not sufficiently mature to learn, enough of any subject to be of any great practical value. The course must be carried further for that purpose.

The principal thing that can be taught in a school, and that ought to be taught (and I regret to say I see by a number of publications is to a very large extent not taught) is the art of studying, with the power of concentrated and continuous application. A school that would teach a boy that, would teach him what for his future life would be of more value than anything else he could learn in a high

school; and it is my observation, at least, that a boy who has been really well drilled by a competent teacher in Greek learns that more thoroughly than in any other subject.

I am not speaking of the boy or man who carries his studies far enough to "read Plato with his feet on the fender", but of the boy who drops the study say at the end of the Freshman year in college, or even at the end of his school course.

So far as possible, it seems to me that a boy should take in a high school those studies which he cannot pursue for himself. A very good working knowledge of history, of course, - not accurate or scientific, but much more than the ordinary man of cultivation possesses, - can be acquired by anybody who has a taste for reading, by a course of private reading, well laid out. Of course, that will not teach him the methods of historical research.

I am sorry to be unable to use your blank in replying to you. I return the blank, however, and I would add one thing, and that is, that it is far better to know one thing well than to have a smattering of a great many things. There is no proverbial expression that has more truth than that which describes the homo unius libri as being a person to be feared. It is nothing but a proverbial description of the fact that the essential in all things is thoroughness."

Mr. Harry M. Hoffheimer.

"I favor a course that requires mathematics also Latin with Greek optional. There should be a substantial course in history and more attention paid to English."

Mr. Charles J. Hunt:

These questions cannot be answered Yes or No. The answer depends upon how many years the boy will probably have to devote to school and college education.

Given such number of years, many or few, the earlier years should be devoted towards acquiring a general knowledge of a great number of subjects and the later years towards acquiring a thorough knowledge of a few studies.

During such earlier years whether few or many both classics and mathematics should be included."

Mr. Ferdinand Jelke:

"There are certain conditions to be taken into consideration in answering your question.

Is the boy's education to terminate with the high school, or is the high school preparatory to a University course?

A. If the former, I would consider aptitude and prospects. While the high school or adolescent period is a little early to let aptitude control, it should be considered.

1. If a boy's prospects carry him into industrial life, I should favor No. 2.

2. If his prospects carry him into commercial life, insurance, journalism, or any of the callings requiring the elastic mingling with men, I should favor No. 3.

3. It seems that No. 1 could be molded to fit the boy.

B. If preparing for the University, I would recommend No. 4.

I would be influenced by the same consideration in answering your other two questions.

If the boy's course is to terminate with the high school, I would favor a general knowledge of a great number of subjects.

If preparing for the University, I would favor a foundation and disciplinary course in both classics and mathematics, leaving general expansion until later; this for two reasons:

(1) The later opportunity.

(2) A mind so trained will always reach out for general knowledge through a life-time of intelligent effort."

Mr. Malcolm McAvoy recommends No. 4. He believes in a thorough knowledge of a few studies for high school at least and half of undergraduate college course also.

Mr. W. H. Mackoy:

"No. 2: Mathematics and one or more modern languages when a boy intends to enter upon a business life after the conclusion of his high school course.

No. 4: Both the classics and mathematics when a boy intends to enter college after the conclusion of his high school course.

I believe that a boy should pursue those studies which will best develop his capacity to reason and to draw conclusions for himself."

Mr. Stanley Matthews:

"This course, (No. 4) seems to me to be essential as the groundwork of an education."

Mr. Max B. May:

I should advise this course (No. 4) provided instruction is likewise possible in History and Science."

Mr. Albert Morrill:

"Everything depends upon the boy. But for the average boy and for general purposes of education I vote for course No. 4 with History (Ancient and Modern), English and American Literature, Physiology, Geology, Botany, one modern language, and Principles of Government."

Mr. J. W. Peck advocates 2.

"A one or two year Latin Course, Greek optional, the accent on the sciences."

Mr. Robert C. Pugh prescribes No. 4 with general literature and some modern foreign language.

Mr. C. D. Robertson selects No. 2.

"No. 4; not for every student."

"Arithmetic, History and Geography are relatively of most value for boys in my experience."

Mr. W. P. Rogers:

"It would depend somewhat on the natural mental quality of the boy. But if he seemed naturally fitted for it, I would advise No. 2."

Mr. Murray Seasingood recommends No. 4.

He also recommends the following: Rhetoric, History (Ancient and Modern), French, German, Spanish, Physics, English Literature and Astronomy.

"If possible, the course should be different for those

meaning to go to College and those not. The boy in the latter class should have his interest aroused in many subjects, and, if he is of a studious turn of mind, he will continue to study these (or some, at least) after graduating from high school. The boy who goes to College will have a great variety of subjects offered him, and what he needs most in high school therefore is the habit of thorough study in a few subjects. On the whole for either class, I think the mental discipline from getting deep into a few subjects is of great value. Even for the boy not going to college at least one subject should be made of major importance. The habit of thoroughness is what we need most."

Mr. Chas. B. Wilby emphasizes No. 4.

"No. 1; No, the elective system should not begin earlier than the sophomore year of the college course.

No. 2; I believe mathematics and the classics are equally necessary as mental training for every boy. No high school boy should be able to dodge that training.

In addition to the classics and mathematics, the high school course should include English and history, and at least one modern language, preferably French.

I am glad your questions apply to boys alone."

Mr. D. D. Woodmansee chooses No. 2.

"I would require a thorough course in the sciences, physiology, and astronomy. He should have at least two years of both Latin and German.

Question (A). No.

Question (B). Yes.

But I prefer to have a general knowledge of the important sciences than to entirely neglect a part of them."

Mr. W. Worthington.

"I have delayed sending in my suggestions on the blank that accompanied your circular letter partly because I do not know that I am quite sure of the standpoint from which the questions are to be answered.

The advice that I would give to a boy would depend very much upon what I thought of the mental characteristics of that particular boy. If we assume that the boy would have the four options that are indicated in your list of questions, which option would be the better one for him would depend in my judgment partly upon his mental makeup and

partly upon his purpose or intention as to carrying his studies beyond the high school.

Assuming, however, that what is desired is not so much my opinion as to what would be best for any particular boy, but what kind of a course would do the most good for the greatest number, then I should unquestionably vote in favor of the course requiring both the classics and mathematics, and consequently I have written my name under No. 4 on your list of questions.

You ask also whether I believe in general knowledge of a great number of subjects or in thorough knowledge of a few subjects. I take it that this question is addressed to the stage of education referred to in the other questions, that is to say, the secondary school class. And with this I should say unhesitatingly, the instruction should be over the larger field. Specialized study should be indulged in only after a general education has been acquired."

February 7th, 1916

Dear Dr. Hancock:-

I have been greatly interested in your study of High School requirements. As far as my experience goes with students entering the Medical School, it seems clear that the freedom of election which has been permitted them in the High School and in College has been a serious disadvantage to their preparation for Medicine. Entirely too large a proportion of these students have had an insufficient amount of Latin. Their work here and in English has too often been superficial. In Mathematics very few have secured a satisfactory working knowledge.

The average man lacks a systematic method of thought, and exhibits no near approach to the mathematical precision required in Science, and more needed every day in ordinary life.

A number of courses in school will teach observation, memorizing, or description, as geography, history, or literature; but in biology, anatomy, or physiology, it is necessary, in addition, to be able to draw accurate, safe conclusions from collected data. The constructive process in an induction requires training in mathematical reasoning.

This is not realized by most persons unfamiliar with the modern demands of Science and the subjects which are dependent on her results.

If medical sciences are to be taught as anything more than mere memory work, we must insist on our students being previously trained in mathematics, and much more rigidly trained than they now seem to be. Their method of thought is now apt to be diffuse, unsystematic, and inconclusive; apparently because of the loose way in which they have been hurried through a minimum of both Latin and Mathematics. These subjects have always represented substantial mental discipline, besides forming a necessary part of our fundamental equipment. I believe that more time and more thorough method is needed for both Latin and Mathematics in the High School.

A great advantage in Mathematics as a preparation for our work is that the student finds it necessary to obtain a correct knowledge of each step before he goes further into the subject. Each more advanced section depends, insistently, on the use of what has gone before. Mathematical reasoning also teaches the student to group the elements of a problem in proper proportion to insure accurate conclusions.

These characteristics are also not only prominent in Physics and Chemistry which medical students are now obliged to study more than ever, but are needed in anatomy, biology

and physiology to a degree not generally appreciated. I do not refer only to measurements, weights, percentages, calculations of relative values of force, etc., but to the fundamental methods required by exact thinking. I am brought face to face with serious deficiencies in training for this process every day.

Sincerely,

H. W. E. Knower (Signed).

2220

April 8, 1916.

My Dear Professor Hancock:

In a statement recently made by a professor of the University before a gathering of secondary school teachers of Cincinnati and vicinity, the relation between the study of English and that of foreign languages was touched upon. Certain statistics which the speaker had gathered gave, according to this statement, the following conclusion: while nothing positive can be asserted, yet, so far as the figures indicated, no superiority in English grades can be found among those who take foreign languages over those who have had no foreign languages.

This statement seemed to me to be contrary to any rational conception of educational values. For, if education means anything, it means the training of the intellectual processes in certain fields of thought. While there are some who deny the possibility of transferring mental powers from one field to another, yet it would seem clear that all languages are sufficiently of a kind to be considered as essentially within the same field of intellectual endeavor.

Since, however, the gathering of statistics seems to be the spirit of the day, I was induced to undertake the making of an investigation into the same data which had been employed by the author of the above-quoted statement. The first difficulty that arrested my attention was the impossibility of making any comparison upon the grounds assumed by the professor, who included students taking any foreign language. Upon such grounds any conclusion would be futile from the fact that almost all students entering the University of Cincinnati in the fall of 1915 had at least four credits in some foreign language.

Since therefore a restriction of some sort had to be made and as my own interests are primarily classical, I concluded to make an inquiry along the following lines: to divide the entering class of 1915 into three groups: (a) those offering four or more credits in Latin and Greek, (b) those offering two or three credits in Latin, (c) those offering no credit in Latin or only one credit. Having made this division, I then looked up the grades these students received in English 1 at the February examinations. Dividing these grades into two groups, the one group including those receiving A to B-, or the superior students, the other group including those receiving C+ to E, F, and sub-freshman, or the inferior students, we have the following results:

Grades in English I.

	<u>A to B-</u>	<u>C to F and Sub-freshman</u>	<u>Total</u>
4 credits or more in Latin and Greek	41	94	135
Two or three cred- its in Latin	11	76	87
No or one credit in Latin	3	43	46

From this table the conclusion is evident that, as far as these statistics go, the chance of those students who have had four or more years of Latin and Greek of being in the upper division of English students is about one to three; of those having two or three years of Latin, about one to eight; of those having no or one credit of Latin, about one to fifteen.

Very truly yours,

W. T. Semple (Signed).

Even a cursory examination of the answers to my questionnaire shows that many very prominent men have voluntarily expressed themselves as absolutely opposed to the training that the boys are now getting. In the spaces left blank in my circular letter for recommendation of other studies, it may be observed that by residents of Cincinnati book-keeping was suggested three times, a commercial course three times, trade course once, salesmanship once, English and English Literature twenty-two times, modern languages fifteen times, History twenty-three times, science seventeen times. Recommendations from men outside of Cincinnati ran about in the same way.

Now we find that in the elementary or grade schools there are taught English, Geography, History, Mathematics and German (optional). The opinions expressed almost unanimously in the answers to my questionnaire are that these courses should be continued with increased emphasis in the high schools and that there should be added science and languages, either classical or modern, preferably both.

A few courses could easily be arranged so as to include all these subjects, and most of us believe that if the boys were made to take such courses and each day were required to do a definite task, the great majority of them would be much better prepared to begin their respective vocations.

It was shown above that not seven per cent of the boys who enter high school, have decided upon their future careers. Of those who constitute this seven per cent many expect to be preachers, lawyers, doctors, engineers, etc., and such are very emphatically

advised to take the courses just mentioned. It follows that eight or ten different courses have been inaugurated to accommodate less than three per cent of all the boys.

Under the existing conditions, it is evident that if in the educational system as a whole, from the kindergarten to the university, the present numerous courses were contracted instead of expanded, the fundamental subjects could be more emphasized and better taught; it is also seen that the authorities could get a better line on their teachers and could require constant improvement in their scholarship. At the same time they could pay better salaries and give a better status in the community to teachers and thus induce better men to enter this, the most important of all services.

Résumé.

1. An investigation has been made in which in the answers of approximately one hundred Cincinnatians are found to correspond closely with those of one hundred non-residents of Cincinnati.

2. The author wishes very much to see the investigation applied to other localities.

3. Many prominent men in very diverse vocations have shown great interest in the investigation. They have not only answered the questions that have been raised and offered numerous comments on them but they have also voluntarily taken the trouble to write letters which are of great interest.

4. The consensus of opinion is that the subjects which always have been considered fundamental should be emphasized in the high school course.

5. There is no ground or demand for the introduction of many subjects that have found their way into the high schools. For example, in the so-called Commercial Course we find "applied mathematics" substituted in the second year for Plane Geometry. It is to be noted that applied mathematics usually follows a course of at least five years study in pure mathematics. As used here the term is a misnomer for "easy arithmetic". No mathematician or body of intelligent business men would recommend such a substitution. It is one of many examples of the "ease" that is permeating the schools.

N. B. Illustrations are taken from the field of mathematics since the author is able to speak with authority on this subject.

6. Teachers are wasting much time with courses in methods, pseudo-psychological subjects, vocational guidance, etc., to the detriment of the subject-matter which they are teaching. For example, it is quite possible, and I find it to be often the case, that a person who has taken only the first two years of mathematics in a high school and whose grades are hardly passable, is able without further study in mathematics to obtain a position as teacher in the seventh and eighth grades. It is also true that the best pupils in the class are better able to teach the mathematics than are such teachers. I find also that many of these persons are rated high upon the preferred list of teachers, and, unknowingly on the part of the superintendents and innocently on the part of school directors, those teachers are rapidly promoted.

7. The methods known as Vocational Guidance cannot be applied to pupils entering high school (see the experiments of

Dean Schneider mentioned above). With rare exceptions there is no one who can make a "proper selection which enables the boy to obtain the education which will best suit him for his subsequent career," nor is there any one to make ^{an} "individuality of a boy's mind."

8. It appears that not seven per cent of the boys who enter high school have any idea of what they intend to do in the future, and of this seven per cent the majority of the boys are advised to take strictly disciplinary courses.

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